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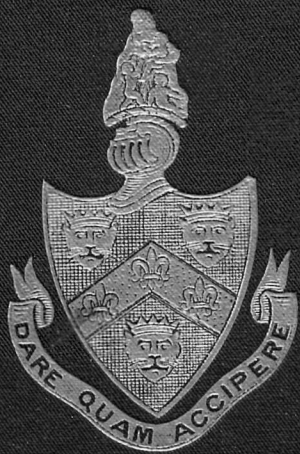

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GUY'S HOSPITAL GAZETTE

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PASSIM

AND a Happy New Year to YOU.

From the quiet seclusion of our Office, where we have sought shelter from the "die-hard" Christmas revellers, we wish that the Bicentenary Year of our Hospital may bring to *you* that happiness and success, which is so evidently your due, and to the Hospital that freedom from financial worry, that is still more evidently overdue.

In some respects this has been a checkered Christmas. There has been scarlet-fever in the Eye Wards, chicken-pox in the Baby Ward and various post-prandial rashes among the patients and nursing staff in at least one other ward. Surely the most highly-coloured Christmas of modern times. But, in spite of this, the usual concerts and "Nigger" performances were carried out with the usual mixture of melody and noise and full reports of them will be found elsewhere. One Christmas at hospital is just like another. The ward decorations always seem better than usual; the concerts are always above the usual standard and the "Niggers" are always the best that have ever been known. This yearly series of records will go on as long as Christmas is celebrated in Hospital and are merely an expression of the Christmas attitude of seeing everything through rose-tinted glasses and hearing everything through somebody or other's patent shock-absorbers. Everyone from the Treasurer to the smallest patient feels happy and sets out to give his feelings vent in the usual symptoms.

Then comes the New Year, and happiness gives way to feelings rather of awed relief—awe at the thought of the tremendous events that may occur before another Christmas comes round and relief that now, with the start of a new year, one can throw off all the bad old habits and start in on a life of high living and conscientious study. This last feeling sometimes lasts for several days.

The beginning of a new year is always an interesting time and there are few more harmless though amusing pastimes than that of breaking the new year's good resolutions. We never forget to resolve that we will rise early each day throughout the year and generally manage to struggle down only a little late for lunch on January 1st, to demonstrate afresh that we *will* be master of our own life. Little things like that keep up the thrill of starting a New Year, but this year there must be something of a more real emotion for all Guy's men and women.

In three day's time, Mr. Guy's Hospital will have been open for exactly two hundred years. On January 6th, 1725, the first patients were admitted, the Medical and Surgical Staff being elected shortly afterwards, and on Tuesday next, this great occasion in our history will be celebrated by a Commemoration Service in Southwark Cathedral. Our President, His Royal Highness the Prince of Wales, has graciously announced his intention of being present at this Service, which will most certainly live in the memories of all who are lucky enough to gain admission to the Cathedral. There will be few, who will leave, without a determination to do something more for their Hospital and we would like to reproduce the scene so

realistically for those, who cannot be present, that that feeling of wishing to help will take hold of everyone who reads it.

As a suitable bicentenary land-mark it was decided by the Governors of the Hospital that an Appeal should be made for two hundred thousand pounds, so that the third century of our existence could be started free from debt. It was not intended that the whole amount should be collected by our birthday, but that by that date a good start should have been made. This has been done, but there still remains more than half the proposed sum to collect, and it will need the whole-hearted support of every Guy's man and woman, if that is to be collected by the end of the year. A few thousand small amounts soon swell the size of the Fund and there are many thousands of Guy's Doctors and Nurses. Let your one, unbreakable New Year Resolution be to approach each of your friends for a donation to the Hospital, however small, and so help to complete the two hundred thousand as quickly as possible.

ANOTHER land-mark of the Hospital's Bicentenary celebrations will be the Special Number of the GAZETTE. This has outgrown the size originally intended for it. As its compilation proceeded it was found that there were more and more departments of Hospital life that could not be left out and so the volume steadily grew. It is now rapidly approaching its two hundredth page and its eightieth illustration and forms a history of the Hospital, that will become a valued possession of all who have ever lived and worked at Guy's. Owing to its size, it has been found impossible to publish it on January 6th, as was intended, but it will be in the hands of all, who have ordered copies, a very few days later. To make certain of obtaining a first edition copy, half-a-crown should be sent to the *Gazette Manager*, but Nurses and Students actually at the Hospital will find copies for sale in the GAZETTE Office of the Counting House. Among other articles on Hospital sport, a very complete history of the Guy's Rugby Football Club has been written by Dr. Allport, in his day the leader of the English scrum, and this will be very fully illustrated with photographs of prominent Guy's footballers and famous teams.

WE remind our readers with great glee that their subscriptions for the year 1925 will now be welcomed by the GAZETTE Manager.

Guy's Hospital Bicentenary Appeal.

THE Second List of Contributions and Promises to the Appeal appears below. This includes donations from Twenty-five Guineas upwards. The Preliminary List in last number of the GAZETTE contained donations from One hundred pounds upwards.

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It is impossible at present to enter all the subscriptions under the names of those who have been collecting. At the close of the Appeal a full classified list will appear.

The Disguysed Minstrels.—Performance at Windsor Forest Club.

Our grateful thanks are due to Dr. and Mrs. Hurst for this performance, which took place on Saturday, December 27th last. Although this was given at very short notice and it turned out a very wet afternoon, Dr. Hurst had managed to fill the Hall. The Minstrels were excellently received and it is greatly to their credit that they entertain all kinds of audience so splendidly. The proceeds were nearly £30, Dr. Hurst having most generously defrayed all expenses. The Minstrels are indebted to Mrs. Hurst for her very kind reception and hospitality.

Performance at the Oatlands Park Hotel, Weybridge.

A performance was given at this Hotel on December 30th, through the kind arrangement of Mr. Jarman. The Proprietor and Manageress gave every possible help to make the evening the success it was, and our most grateful thanks are due to them for all their kindness and hospitality. Mr. Eason said a few words on behalf of the Appeal with the grand result of raising £40 as a collection from the audience. The Minstrels were certainly at their best and judging by the constant demand for encore after encore they will have to enlarge their repertoire considerably. It was a thoroughly successful and enjoyable evening.

With reference to the above performances the Minstrels are anxious to express their great appreciation to Mrs. Eason and Dr. Ryffel for so kindly driving them down in their cars. In spite of the continuous rain Mrs. Eason and Dr. Ryffel gave this valuable help on both occasions. Special thanks are also due to Mr. Hughes, who so kindly lent a car for Weybridge.

Future Announcements.

The Disguysed Minstrels will appear at the Kenley Memorial Hall on January 8th. At Hurtwood Edge, Ewhurst (by kind permission of Mr. and Mrs. Rowlands), on January 10th. At Oxted on January 26th. At New Lodge Clinic (by kind permission of Dr. Hurst), on January 30th, and at Watford on February 4th. Other arrangements are being made and will be announced later. Full particulars may be obtained from the Secretary to the Treasurer, Guy's Hospital.

Grade "A" (Tuberculin Tested) Milk.

By R. KING BROWN, M.D., D.P.H. Medical Officer of Health, Bermondsey, Lecturer on Public Health, Guy's Hospital.

IF the Nation wants clean milk the demand must come from the Public and consumers of milk, otherwise the supply will not be forthcoming. That is what has happened and is happening in the United States, where the Public Health Authorities, by suitable propaganda, have created a demand for pure milk, with the result that the producers and retailers of milk have found it necessary to replace old and dirty methods of obtaining and distributing milk, by clean methods, and the farmers to ensure that their herds are free from disease, especially tuberculosis.

Large numbers of herds in England are infected with tuberculosis, the result being that if samples of ordinary milk are taken, tubercle bacilli will be found in from 5 to 25 per cent. It is the tubercle bacillus in milk which causes a great deal of illness in young children, especially those under five years of age, and which frequently takes the form of disease of the bones, joints and glands, and if it does not kill the patient, leads to life-long crippling. If a pure milk supply could be ensured, there would be a great fall in the diseases of childhood, especially tuberculosis, as practically the only remaining source of infection from the tubercle bacillus would then be from contact with human beings suffering from pulmonary tuberculosis.

In this country we are very backward in the production of good milk, mainly because there has not been a demand for clean milk. Now that the Ministry of Health has made arrangements whereby milk can be obtained in a cleanly method from cows which are free from tuberculosis, there is a great opportunity for the consumer to demand clean pure milk, under the designation of Grade "A" (Tuberculin Tested) milk. This grade of good milk can be sold in London, with a reasonable profit, at 1d. a pint dearer than ordinary milk, and is well worth the difference. It is not only free from tubercle bacilli, but it is also free from the ordinary dirty deposit, which anyone can see for himself in ordinary milk, when it is allowed to stand in a tumbler. This is easily verified in the home. Grade "A" (Tuberculin Tested) milk keeps fresh 48 hours in the Summer and 3 days in the Winter.

The precautions taken to ensure the cleanliness of Grade "A" (Tuberculin Tested) milk are so rigid that it would be most dangerous for a purveyor of this milk to tamper with it in *any* way.

Before discussing the methods by which it is produced, I should like to point out that there are other Grade "A" milks, with which it may be confused. There is a product called "Certified" milk which is in all respects identical with Grade "A" (Tuberculin Tested) milk, the only difference being that it is bottled on the farm, instead of being bottled by the distributor. There are certain advantages about this, but they are more apparent than real, and the present price of 3d. per pint dearer than ordinary milk will prevent its general adoption. There are two other milks, styled Grade "A" and Grade "A" (Pasteurised), which are liable to be confused with Grade "A" (Tuberculin Tested) milk, but customers asking for the latter must examine the label on the top of the bottle, and see that the printed words "Grade 'A' (Tuberculin Tested) Milk" are on it, with the date of production. In Grade "A" *the cattle are only examined* by a Veterinary Surgeon, and while he is able to guarantee the general health of the cows, he cannot guarantee that they are free from tuberculosis, for this disease can only be discovered by testing with tuberculin, a test which is not given for this grade of milk. Pasteurised milk at the best is only a poor substitute for clean milk, and there is no doubt that pasteurisation—which is merely a form of cooking—takes away some of the health-giving qualities from the raw milk. Should pasteurised milk, by any chance, be boiled or heated a second time by the distributor, or in the home of the consumer, the element of milk which prevents scurvy, and is known as vitamine "C," is completely destroyed, and if this milk be used for children, they must be supplied with some raw fruit juice.

A short description of how this Grade "A"

(Tuberculin Tested) milk is produced will convince most people of the practicability of obtaining an adequate supply, especially as no difficulty has been found with the farmers, when they find that there is a demand for it.

In the first place the cattle are all tested with tuberculin every six months, and those that have tuberculosis are excluded from the herd. They are also inspected by a Veterinary Surgeon under the Ministry of Health. The cattle are kept in the open air as much as possible, or in well-ventilated sheds if the weather is too inclement, and at milking-time they are brought into sheds which are kept specially clean for this purpose. Before the milking takes place the long hairs are clipped from the udders and any portions of the hind-quarters which are likely to contaminate the milk. The udders and hind-quarters are then washed down very carefully. All the vessels which are used are sterilised by steam. The stools on which the milkers sit are also kept very clean, and the milkers themselves put on overalls and caps, and wash their hands and arms before milking. The pails that receive the milk first are so protected that nothing can fall from the cow into the milk. After the cow is milked, the milk is immediately tipped into a receiver, which conveys it to the dairy where it is cooled. When it is cooled it is then poured into churns which have been very carefully sterilised by steam, and these churns are then locked and immediately sent to the railway station. On their arrival in London they are received by the distributor, who takes them to his premises. In his premises the milk is very carefully poured into sterilised bottles by suitable machines, and the bottles are at once secured by a special cap, which cannot be removed or tampered with without tearing, and it is then delivered to the customer in this condition.

As soon as the bottles are filled the distributor immediately takes to pieces all the machinery used in bottling, cleanses it thoroughly with boiling water, and then places it—together with the empty bottles which have been washed—in a steam steriliser for half-an-hour, to be ready for the next bottling. Every possible precaution is taken to produce cleanliness of the milk and for the sake of clarity I will deal separately with the precautions taken by the Authorities to ensure that there is no tampering with the milk, for Grade "A" (Tuberculin Tested) Milk must not be heated at any stage.

In the first place the farm has to be specially licensed by the Ministry of Health, and the farmer is taught the methods by members of the staff of the National Institute for Research in Dairying, near Reading. The bacterial standard of the milk both immediately after milking, and also when it arrives to the consumer, is laid down by the Ministry of Health, and farmers have samples of milk taken from the churns before they are sent to town, and the bottles of milk are frequently sampled when they are ready for delivery to the customers. Samples can also be taken at any stage right from the milking of the cow to the door of the consumer, and if it be found by bacteriological examination that the milk is not up to standard, the producer or distributor, as the case may be, is liable to be deprived of his licence.

The distributor who does the bottling is specially licenced by the Local Authority, is under their supervision, and, of course, is not licensed until they are quite sure that he has got the necessary apparatus for sterilising the bottles and other utensils used in dealing with this high grade of milk.

The Bermondsey Borough Council has realised the importance of Grade "A" (Tuberculin Tested) milk for the milk supply under the Maternity and Child Welfare Act, and has given notice to all milkmen in the Borough who supply milk under this Act that, on and after July 1st, 1925, they will not accept any other milk for women and children but Grade "A" (Tuberculin Tested) Milk. As the Borough spends about £5,000 a year on milk at present, the importance of this decision cannot be over-estimated, and it is hoped that their example will be followed by Sanitary Authorities, Boards of Guardians and Hospitals all over the country.

Appointment.

Abraham S. Erulkar, M.D., Examiner in Medicine at the M.B., B.S., Bombay University, and Hon. Physician to the People's Free Hospital, Bombay.

Publications Received.

The British Medical Journal, The St. Thomas's Hospital Gazette, The Dragon, The Royal Dental Hospital Magazine, The Nursing Times, The Hospital Gazette, The Northampton Gazette, The University College Hospital Magazine, The Burma Medical Times, The College of Nursing Bulletin, The Medical Journal of South Africa.

The Disguysed Minstrels.

Opening Performance at the Bridge House Hotel, December 22nd, 1924.

[By our very disguysed Correspondent (fortunately for him!).]

THE Bridge-House Hotel, that scene of many revelries! What tales you could tell, were it not for the Censor. What melody and laughter have mingled in your halls. Yes, and what Scotches and Sodases have mingled outside. Does your mortar heave with pride at the thought of the company you entertained on December 22nd? The Staff and their ladies, the Junior Staff and their friends, the incipient Staff and their cigars? I confess I was much put to it, to find my seat among that Medical galaxy.

At eight twenty-five, a well-known House-Physician—no less—crossed the stage, threw back the key-board cover and struck the central "A." Fair and square he struck it and then, closing down the key-board cover, he uncrossed the stage and resumed his seat. That was the end of the first part. At eight forty, a lady in a white muslin apron mounted the stage, threw back all the covers that she could find and—the stage was set. (That is a technical term meaning that the stage was ready to be trod.) And at eight forty-two the Disguysed Minstrels made their first appearance in all the ease and glory of their new costumes. Lights out, footlights up and the toute ensemble (French, meaning "all everybody") introduced themselves to music. Right at the start they made everyone feel at home with their delightful witticisms. "If you have enjoyed our show, then bring your friends to-morrow," they sang, and we all knew that if we did bring our friends to-morrow we should find the room in semi-darkness with all the chairs turned upside-down on the tables and just a few ladies sweeping up the crumbs ready for the next day's dinners, and so we all laughed like anything.

The first soloist was Gladys Meagher, who sang so sweetly that we began to think she really did love us, just as she said she did. Pat O'Meara and Woodruff then sang about their farm in Pennsylvania, where they kept rabbits and chickens and everything got mixed up, so that the rabbits got their legs chopped off if they wouldn't lay, which seemed hard luck on the rabbits, but very exciting in view of the theory of evolution. Then Morgan sang and sang so beautifully that we forgot to think what a very amorous black-bird it was that he was singing about and encored (French, meaning "agained") him, until at last he sang that most exquisite of quaint English folk-songs, "What to do with a drunken sailor." Betty Eason, who right at the opening chorus had taken us into her confidence so far as to tell us that she was the veritable nightingale, next made a most melodious, convincing and impassioned appeal to everyone to leave lots and lots of time for love, and I saw people all round making notes on their programmes and tying knots in their handkerchiefs. She was followed by three really reprobate old Parsons, who said they presided over the Parish of Puddleton and really I don't think my mother would let me go to their Sunday School at all, if she had heard them singing. They made lots of people blush and a lady in front of me kept coughing discreetly behind her hand until the sweetness of Hilda Roger's violin soli (plural for solo) had swept all memories of Puddleton from her head. The stage then cleared, to be immediately invaded by a troupe of street-vendors, who began to get very noisy, but were turned out by a constable, just as all the lights were turned out by someone else and that was the end of the first part of the programme.

The second half was quite different from the first half. First they all sang "It ain't agoin' to rain no mo'" (American, meaning "it is not going to rain any more,") and then Woodruff sang a lot of comics, like "Don't get the wind up, Walter," and how he pretended to be Mother for a day, and how he was a fireman bold. (He was a fireman bold in a real fireman's hat, and, as it was the Guy's Residents who originally stole that hat from the fire brigade one New Year's Eve, we should have liked to have seen it acknowledged on the programme. In any case it didn't fit him.) Gladys Meagher and Pat O'Meara then sang a duet, which at first I thought was a laughing

song as Pat said "Ha, Ha," at the end of each line, but it turned out to be all about "Sympathy," and should have been not "Ha, Ha," but "Oh, Ah." This was followed by "Mr. Gallagher and Mr. Shean," and some songs by Betty Eason and then Lollie Forman gave his faithful character sketch of a Suburban gentleman. Hilda Rogers might have played more than twice on her violin without making us tired and the four Italians were an absolute quartette. Pat's whiskers would not stay on, which was very laughable and the grand finale (French, meaning "big end") was the greatest advertisement for Ukuleles ever staged. I know I shall never buy one and lots of people felt just the same way about it.

That was the concert and it was just splendid. Nothing finicky and prudish about it, just down-right good humour, with occasionally right down bad, wicked humour. But omnia bona bonis, (Latin, meaning "all things are good to the good"), and we were all good and thought the Disguysed Minstrels were very good, and if anyone can persuade them to give a concert in their village institute, they will be very lucky and will have a very enjoyable, laughable evening.

Across the North Sea in a 5-Tonner.

(A log read before a Meeting of the United Hospitals Sailing Club on the 19th November, 1924).

Yo! ho! ho! for a bottle of rum
And the *Albatross* slashing the waves;
Salt spray flying, and dead men lying
Deep in their watery graves.

Whatever may blow, where'er we go,
We'll set our sails to the breeze;
Through lightning and thunder, lee rail under,
Over the wild white seas.

WE started from Dover. Jock Morrison, with a party of braves from the Hospital, had taken the *Albatross* from Fambridge to Dover during the previous week-end and it was there Tupling and I joined him. We began with bad weather. Jock met us in the town and suggested staying ashore for a bit. This suggestion we turned down heavily. It was certainly blowing too hard to think of crossing the Channel, but Tup and I had come to sail the seas and were keen to get on board at once, so off we went. After a few minutes on board, however, we began to appreciate the extent of Jock's wisdom and the virtue of terra firma. An almost uncanny swell came rolling in which did not vary with wind or tide and I have never seen the old boat roll like it. With keel and mast for pendulum she dipped first her port gunwale and then her starboard gunwale with the utmost regularity for 48 hours. So we spent as much time ashore as possible and only came aboard at night when we tried vainly to sleep. After two days it moderated and we slipped across to Calais, where bad weather again held us up. Here we had another sleepless night. We were berthed alongside a tug at the end of the harbour. An increasing swell rolled in as the tide rose and most of the night was spent adjusting warps and improvising fenders until finally at four o'clock it got so bad that we decided to move into the canal basin. So Jock set off in pyjamas and gum boots, knocked up the lock keeper and got the gates open. Towing her by the mast we had no difficulty getting in. The shelter within those lock gates was a veritable paradise after the furies that were raging on the other side of them. Needless to say we were all dog-tired, but one of our mast-stays had been damaged at the base and it was necessary to get a new casting made. So we got to work at once and unscrewed the broken part, and Tupling set off at six o'clock to find a place where it could be done. All workshops and foundries open at six o'clock in France, and fortunately we had no difficulty about it. The new piece was made and fitted on by 2 p.m. the same day and cost altogether five shillings.

But it was still far too rough to put to sea. So we went for an exploration on land. Calais is not a bad little spot with a most excellent beach; but there was such a fierce sandstorm blowing and such a wild sea beating upon it that there were not many people disporting themselves there in the sun. In the evening we went to a play which wasn't at all bad—though everyone talked at a most appalling rate. It was late when we got back to the

Albatross, and we enjoyed, as we deserved, a good long sleep on an even keel.

Next day the weather had relented, and we set sail for Dunkirk. A light breeze followed us most of the way, but towards evening it failed, and finally left us becalmed about 3 miles from Dunkirk. We took to the sweeps, as we were most anxious to make harbour for the night. For a full hour we puffed and panted and oars creaked in the rowlocks as our backs bent to the strain. But when about a mile from the entrance we could no longer make way against the flood; so we dropped anchor in five fathoms and turned in. Sleep was difficult owing to the swell.

Early next morning (at 4.30) we turned out and decided to give Dunkirk a miss and carry the tide up to Ostende. We passed Nieuport at about 9 a.m.. Remembering last year's adventures we were sorely tempted to put in there, but time was short and we wanted to make the Scheldt as soon as possible. So we pressed on to Ostende, which we entered early in the afternoon and brought up in a comfortable anchorage at the end of a long arm of the harbour where there is a Royal Yacht Squadron Station. We went ashore early. As last year there were swarms of English people in Ostende with the unfortunate result that English prices, and fancy English prices, prevailed in many of the restaurants.

It was planned to have a full day's rest from sailing in Ostende. So next day we went by tram on a pilgrimage to Nieuport. It was about an hour's run, and on arrival we set out at once to explore the neighbourhood. Nieuport was right in no-man's-land during the greater part of the war, so very little remains of the original town. In fact, nothing remains except parts of the cobble roads. The town is some distance inland and is joined to the sea by a wide canal about three miles long. The banks are still strewn about with barbed wire and the remains of trenches and dug-outs and other debris of war. In some of the trenches the original revetting is still standing. some of the pill-boxes are intact; others have the roofs smashed in. I was never in this sector, but one part of the line is very much like any other part, and something of the grimness of war can still be felt here among this rubble of bricks and broken concrete.

Later on we strolled down to the sea and viewed the old broken pier which recalled, with all the vividness of a nightmare, the agonies which we had suffered upon it last year. I remembered how, almost exactly twelve months ago, we had set out from Nieuport with three reefs down on the tail end of a north-westerly gale; how when half-way out we had lost the wind and missed stays in spite of every persuasion of oar and jib; how there was not room to gibe or anchor and the tide and head-sea swung her round on to the broken piles where, with a rending crash, the bowsprit snapped like matchwood.

The piles were broken off at various levels above and below the water. To turn back against wind and tide was out of the question, so we forced our way through the pier on the tops of the waves. We bumped badly, but got through and dropped anchor on the other side in about two fathoms. The hull was intact. How long we spent in the jaws of that monster I shall never know, for events happened so quickly that we were not conscious of the passage of time. We were riding fairly comfortably to the anchor and were shaking out some reefs from the mainsail and lashing the forestay down to the stem when suddenly the chain parted and we were ashore in about two seconds. We were driven high and dry on the top of a Spring tide. Nature had made first-class fools of us.

I cannot describe here the hours that we spent by day and by night trying to get her afloat. For three hectic days we carried anchors and tackles, drove stakes and dug trenches in the sand ; and three nights in succession we went on board, drenched to the skin in a biting northerly wind, and sweated on the ropes till our hands blistered in vain efforts to float her off. How we eventually got her down the beach on rollers and how we fared afterwards belong to another story. Even twelve months afterwards it made one shudder to behold that pier, its jagged piles standing out at low water like a gigantic cluster of canines, and one's heart sickened at the memory of the *Albatross* writhing in its grip. Clifton and Ettles had been my comrades then. But I remember even more clearly and I hope more permanently is the generous hospitality of the Belgian Coast Guards. They took us in, gave us food and shelter, dried our clothes, and literally made us kings in their house. They placed everything at our disposal, lending us anchors and tackles, and when we were at work they came too and helped. And when it was all over they said we were shipwrecked mariners and wouldn't take a sou.

After spending an hour or two on the beach I wandered over to the coast guards' house and found one of them there who instantly called me by name, and asked where Mr. Ettles and Mr. Clifton were. The ferryman who had salved the dinghy, and some others whom I looked up, also knew me at once. Apparently our little stunt has made an impression upon the place.

Before leaving Nieuport we bought three life-belts—just as a precaution.

Leaving Ostend the next day we crept up the coast almost within a stone's throw of the shore, and put into Zeebruges about noon. The mole was interesting, but the block ships have all been dragged out of the fairway and are rapidly being broken up. It was an absolute bee-hive of tugs, dredges, and barges, and we were driven from pillar to post all day long in search of a quiet spot. There was not room to lie at anchor without obstructing the fair-way and every vessel we tied up to decided to move after an hour or so. Finally, at about eight o'clock at night we found a tug which was definitely not going out till six o'clock in the morning. So we made the best of a short period of peace.

Next day we were glad to escape from this pestilential disturbance. We were up early and got away on the first of the ebb carrying the North Sea Stream to the mouth of the Scheldt. Though the tide in the Scheldt was against us, a good westerly breeze held, and we made our way about 12 miles up the river and found a delightful anchorage a little way up a small creek. Here, again, we made up our arrears of sleep. Towards evening the wind fell away to nothing and a great stillness settled upon the Scheldt. Presently a large seal broke the surface of the water close by, evidently intent upon having a good look at us. He was a friendly creature and we watched him into the distance as the tide bore him away up the creek. Next day we saw some more seals, and on our third day in the river we witnessed a great sight: nearly a hundred of them clambered out of the water and crawled up on to one of the sand banks and squatted there basking in the sun.

On the second day in the Scheldt we ran into a small place called Ter Neusen at the head of a canal. We had gone there only to post some letters, but found it so attractive that we decided to stay the night. We liked the Dutch people very much. They all looked as though they had just come out of Turkish Baths, and the streets as though they had been spring-cleaned over night. Although language was a difficulty we found great friendliness here, or mental affinity or whatever it is that makes one feel at home among people. Their dresses, too, were so neat and quaint. There was one costume that specially charmed us—that of the Protestant farmers' wives. I had no idea that such fantastic creations existed out of fairyland. At first we were doubtful whether they would resent being photographed in the street, but apparently it gave them intense delight, and one girl refused to move on—wanting us to do it again. Results, unfortunately, were not very good, and did not nearly do them justice.

Throughout the cruise we had been following the practice—rather extravagant, I thought, but highly instructive and entertaining—of having dinner and sometimes lunch at a typical restaurant in whichever town we happened to be for the night. In France and Belgium it was cheap enough (98 francs to the pound), but in Holland the exchange was against us and we soon began to make large inroads into the resources of the money box. We were not long enough in Holland, though, to run ourselves bankrupt.

After Ter Neusen we threaded our way between the banks across the river to Flushing. We stayed a day and night there and found it much less unattractive to yachtsmen than most large seaports. Next morning we provisioned up for the long run across the North Sea to Harwich. Our departure was timed for 1 p.m., but we did not actually cast off our moorings till just after two o'clock on Saturday, August the 12th. We felt no slight thrill of adventure as we pointed the tiny bows of the *Albatross* into the vast unknown waters of the North Sea. And the farther we got from land the more impotent we felt—a cockle-shell on a boundless sea.

At first we made splendid progress—a good stiff north-easter and the ebb tide from the Scheldt carrying us out to sea in no time. In fact we covered the first 30 miles in about three hours. The barometer was beautifully steady, but the sky looked like freshening, so we lashed down the sky-light and fore-hatch covers and prepared for spray, which, however, never came. We took shifts singly during the hours of daylight, and by night we had two

on duty all the time by an overlapping system whereby each man had four hours on and two hours off throughout the night. As a matter of fact it was so quiet that the second man of the pair on duty was always able to rest. We picked up the successive lightships without much trouble and were not completely out of sight of anything for more than about six hours at any time. Many ships passed us during the night and some of these appeared much perplexed by the fact that our navigation lights were so low and moved so slowly. One wretched tramp altered course four times before finally making up his mind to cut across our bows. We were on one of the main trade routes to the Continent, so a fairly brisk stream of traffic was not unexpected. There were also many fishing smacks trawling on the banks.

At about ten o'clock on Sunday morning I had a swim abreast of the Galloper lightship—about 40 miles from the English coast. It was rather thrilling, but bitterly cold. The wind remained light but steady and kept us moving along at about three or four knots. At about noon we came to the Longsand lightship and thereafter we were scarcely out of sight of one landmark before the next one hove in sight. The breeze freshened a little and sent us spanking along at a five knot clip, and at four o'clock we picked up the tall chimney of Harwich. It was our first glimpse of England. At once we began to feel that we were in home waters and that our venture had succeeded. Nature had taken our challenge lying down. Soon the tower of Walton, the contour of the skyline, and then the details of Felixstowe and Harwich crystallised from the haze that enveloped the shore. We entered Harwich Harbour at seven and ran straight up to Pin Mill for the night. We had been just 29 hours from port to port and had had an almost ideal crossing. The course was 101 miles measured in straight lines on the chart, so that our speed averaged about $3\frac{1}{2}$ knots.

Thus ended a most delightful cruise and the best summer holiday we have ever had. After the first few days the weather smiled upon us and the elements beamed with good cheer all the way along. In fact we did not take in a single reef or have a single hard day's work in the whole fortnight.

Unfortunately we did not keep a log and we were lazy with our cameras. So this brief sketch is the only written record of the cruise. But there is the testimony, none the less real because it is unwritten, of three pairs of bronzed legs and ruddy complexions, and three cheery souls who went back to their stuffy rooms in London reinforced with the life they had gathered from the sun and the North Sea breezes.

The Obelisk Discovered.

Proceedings of the Southwark League for the Discovery of London.

[For the benefit of new readers the Editor has been asked to explain the existence of the S.L.D.L. Soon after daybreak on Boxing Day, 1923, Mr. Albert Cheeseman, a Cathedral Steward, Mr. Thomas O'Connor, an Irish Roman Catholic, and the writer of the reports met in the Cathedral precincts. Being a member of the Church of England the first named has a passion for forming new guilds and societies. It broke his heart to think that, in all probability, thoughts of Christmas and a somnolent tendency, would prevent an otherwise virile church from starting some new organisation on that day. To satisfy his yearning his two friends agreed to form there and then, under the shadow of the square tower which Shakespeare knew so well, the League for the Discovery of London. Cheeseman was elected treasurer, O'Connor, secretary and the chronicler of these articles, chairman. It was agreed that new members should pay a subscription of 10s. 6d. and that they should be enrolled at a dinner given to the original members. The original members were all enthusiasts about London, and all enjoying a state of single blessedness. Their boast was that they were born bachelors, and their agreement was that no accounts should be published. Two new members have been enrolled. Mr. Charles Brook is a medical student with a

warm regard for elderly ladies. Mr. "Willy" Clayson is an elderly gentleman made on the Pickwick model, who is generally treated with seemly deference. Both are bachelors by birth and show no signs of falling from their high estate. Mr. George Young, who is always to the fore in charitable undertakings, when invited to join, refused the invitation on the ground that he had no desire to entertain "dilettante bachelors" at dinner. He agreed to give his services to the League when called upon. In order to show that it was not meanness which prompted his action he marked the occasion of the invitation by sending a donation to Guy's Hospital. He is a Dickensian of some standing and therefore useful on occasions.]

A SECOND and successful attempt to discover the Obelisk was made on Boxing Day when, accompanied by George Young, I met my fellow members at the Elephant and Castle some hours before that noted hostelry opened its doors. The Cheeseman eye gleamed when he caught sight of my companion. He produced his receipt book but with no result. I explained the situation and it was agreed that the object of our quest was more important than the acquisition of Young's money. He alone could take us to that stone erection which his friend Dickens knew so well.

I refused to move on until the historic spot upon which we were standing had been considered in some of its bearings. "The Elephant," I explained, "stands in Newington Butts." At this Clayson's frame, recently reinforced by a good Christmas dinner began to quake once more. The very word "Elephant" gives him what my landlady calls "the shivers." I had forgotten for the moment his elephantine proportions, and I duly apologised. Beginning again I said that "this ancient inn" stands in Newington Butts. "the resort of archers years ago." Two buildings of note stood in this neighbourhood.

Shakespeare's Theatre.

In the days of Elizabeth, theatrical companies, rightly or wrongly—perhaps both—suffered at the hands of the Common Council of the City. They therefore sought accommodation outside the jurisdiction of that body. Three parts of South London, not too far from the City, were available for their purpose namely, the Liberty of the Clink, the Manor of Paris Garden, and the district of Newington. No one knows when the Newington Butts Playhouse came into existence or who built it, but it was in the days of its decline as early as 1592. It revived a little during the days when the Rose Playhouse in the Clink was under restoration. From the diary of that old Warden of St. Saviour's, Philip Henslowe, we learn that the Lord Admiral's Company and the Lord Chamberlain's Men played at the Newington theatre in 1594. The season was a short one but important for

Edward Alleyn,
Richard Burbage and
William Shakespeare,

played there and produced

Andronicus,
Hamlet and
The Taming of the Shrew.

My mention of the last of these brought forth an interruption from Clayson who muttered "Impossible, impossible. I've known three men who tried it. The more you try to tame them the more . . . Shakespeare—may have been a great man—not great enough to fathom the ways of women. I know a man in the Blackfriars Road. . . !" We cut this short by explaining that the "Shrew" was only a comedy and not a serious work. Our aged friend was pacified but his interjection meant the end of my illuminating address. As Chairman I turned to Young and asked him to lead us to the Obelisk when O'Connor refused to move. "Don't forget Johanna Southcott please—your co-religionist." Ignoring the taunt of my Papist brother I told my companions that by the old Elephant Inn there stood years ago "The House of God," the meeting place of the followers of the crazy maidservant, who drew in her train thousands of followers. The story of her imaginings is too sad and too insane to be mentioned here, but they raise the old wonder in the mind of the discerning citizen as to why people, who are apparently sane, should be willing to be led astray by any lunatic, who sets up as a religious leader. On this theme our friend O'Connor, who is a much more genial fellow than I have led my readers to suppose, spoke feelingly. He could not see why Roman Catholics alone among Christians, should be supposed to have a monopoly of superstition, nor could any of us. It is really rather pitiable that every now and then one of the

well-to-do disciples of this mad woman should call upon 24 overworked Bishops to open a sealed chest containing, no doubt, the ravings of a diseased mind. Led by Young we marched up St. George's Road leaving behind us the Piccadilly Circus of South London. Looking up at No. 5, Brook caught sight of a fine stone carving bearing the mysterious inscription, "The Fishmongers' Arms." This thirst-provoking plaque reminded me of the old Fishmongers' Almshouses, which stood here a century ago, but the sign apparently had no connection with the institution. Fortified by age and experience in such matters Clayson came to the rescue and told us that in his boyhood this now harmless building was a tavern. Mystery vanished and we marched forward to conquest.

St. George's Cathedral.

Very soon there came into view an imposing building which made us forget the monument we were out to find. It was the Roman Catholic Cathedral of St. George. Being interested in everything and out of courteous feeling for O'Connor we gave the building and its history close attention. We recalled the old days when Roman Catholic worship was forbidden in London. A more tolerant spirit began to show itself after a time, and in 1788 a room was opened for service in Bandy Leg Walk in the parish of St. Saviour. Five years later "a large and grand chapel" was opened in London Road. The congregation outgrew the building and the foundation of a Cathedral was laid in St. George's Fields. It was in 1840 on the exact spot where Lord George Gordon inflamed the passions of his followers in 1780 that this temple was built. The architect was Augustus Welby Pugin who was much hampered in his task through lack of funds and other difficulties. Even to-day the spire which he hoped to see, has not been built. It was here, of course, that Cardinal Wiseman, the first Archbishop of Westminster, under the restored hierarchy, reigned.

Bedlam.

Young kept very quiet while these facts were being rehearsed no doubt because his master Dickens never mentioned this Cathedral. He then urged us forward and without thought we moved towards that other vast building which was built in "The Fields" in 1810. I speak of Bethlehem Hospital, commonly called "Bedlam." Anxious that no one else should exhibit knowledge I began at once to dilate on the wonderful history of this sad place—the oldest hospital in the world for the treatment of insanity. It was founded in Bishopsgate practically on the site of the Liverpool Street Station of to-day in the thirteenth century. In 1675 it was removed to Moorfields near by. To this place morbid people would go to inspect and to make sport of the chained and neglected patients. The authorities went so far as to charge a fee of one penny for the right of entry. Then, when the buildings had fallen into a ghastly state of decay, James Lewis began the new building in St. George's Fields, which was opened in 1815. The handsome dome which foreigners entering London often mistake for the dome of St. Paul's was erected by Smirke in 1846. Without the dome the building was as dull as the dullest inmate.

Once more my learned discourse was stopped, this time by Clayson, who muttered "You talk like a book." "Carried unanimously," said the ill-mannered fraternity. Accepting the position with good grace the torrent of information ceased but I kept the rudeness of "Willy" in mind. A little ashamed of himself he explained that he was a little tired of cold, hard facts. It was "the human touch" he wanted. Brook suggested that "Willy" might supply it and he did. We were standing outside the gates of Bedlam when he started. "Come inside," he began. Refusing to budge we let him continue. "A great charity—look at the inscription beneath the dome—'Founded by Henry VIII.' the old scoundrel—did nothing of the kind, transferred what was not really his to the City because he couldn't steal it for himself—corrupt dog—inside the doorway there used to sprawl horrible figures of the Brainless Brothers—Raving and Melancholy Madness—now in Guildhall museum." A little out of breath he panted on "Wonderful place inside——separate bedrooms—long furnished corridors—fine dancing halls—sports grounds outside—Chapel right up in the dome—do they all stay in?—certainly not—some go out to work and return to sleep." At this point Cheeseman broke in and asked "Where do *you* live Willy?" Smarting under the recent taunt I asked the venerable gentleman to take us in to see the sign of the "Dog and Duck." It was a cruel trick. I touched the bell and the gates opened automatically ac-

cording to their custom. Clayson moved forward and we moved backward—the gates closed and four men ran away to the corner of St. George's Road where Young called a halt. Benedict Young said nothing for a moment but pointed to a stone erection which tapered towards the sky. "The Obelisk," he shouted. So it was. Behind the railings there stood the memorial to that champion of freedom, Brass Crosby. At last we had made the discovery. O'Connor was the first to break the silence. "I never thought much of you Englishmen," he said, "You have put the monument to the freedom of the press in Bedlam. Well, well!"

From that day to this Clayson has not been seen, and Cheeseman is mediating on the theme of asking another subscription if he ever emerges from those gates again.

Tales of Long Ago.

[*Having lately had occasion to glance through every number of the* GAZETTE, *from the first one, published in* 1872, *up to those of the present day, and having discovered articles in them, which seem to us of exceptional interest, we have thought that some of them might well be republished for the entertainment of our present Readers. This we shall do, publishing one "Tale" in each number, until the supply, which is not a very large one, gives out.*—ED.]

I. Bob Sawyer in 1832.

(G.H.G., JAN. 30TH, 1904).

THE following extract is taken from the pages of a paper called the Mirror (Vol. I.), which was published in 1823, a time when chloroform was a thing unknow and aseptic surgery a dream of the far-distant future:—

There is something particularly "piquant" in the small-talk of gentlemen of the medical profession. I well recollect the conversation of two young surgeons, who were sitting in the next box to me in a coffee-house near Great Marlborough Street.

"Oh! by-the-bye, John, I got the finest subject yesterday you ever saw."

"Ay! Where did you get it?"

"From France, to be sure, and never saw a fellow so neatly packed; by Jove, he was as round as a ball."

"What was the damage?"

"Oh, the fellow who sent me him said if I would send the hamper back full of beef, he should be satisfied; so I sent him a trifle."

"Have you any part to spare? Waiter, another chop."

"Why, you may have a limb reasonable."

"Well, then, next week; but just at present I have a very pretty small subject."

"What did you give."

"Two shillings an inch, but the cursed fellow had pulled the child's neck almost out of joint, to make it an inch longer. But didn't I tell you of the fun we had at B——'s? You know we had that fellow who was hanged on Wednesday for murdering his grandmother. Well, he was devilish ill-hanged, and so we thought we'd galvanise him. We got the battery ready (you know it's a pretty strong one) and, as soon as it was applied, the fellow—but won't you have some more porter? (Waiter, another pint of porter)—the fellow lifted up his brawny arm and threw it twice across his chest. The men were all delighted, but our Irishman, O'Reilly—you know O'Reilly, who nearly got into a scrape with cracking the crown of the Sexton of St. Pancras—O'Reilly, who was standing by, with a stout board in his hand, no sooner saw this movement than, not quite understanding the affair, and fearing that the fellow was actually coming to life again, he caught him a thwack on the side of the head, which made the cerebellum ring again. 'Is it he is going to walk?' cried Paddy—thwack—'and shall Justice be *defated*—thwack—and shall I be *chated* out of me shaving money?—thwack. By Jasus, gentlemen, an' I've floored him, sure."

"Capital," cried John, "I wish I had been there. But have you heard about Astley-Cooper's operation?"

"No, what was it?"

"Why, he whipped off a child's leg in thirty-eight seconds and a half; the child didn't know what he was about, and only asked what was tickling it so."

"Clever, that, by Jove. Do you know who is likely to get St. Thomas's?"

"Why, some say A., and some B. I know

B.'s friends have subscribed for thirty new governors. Have you seen the new tourniquet?"

"No, but I am told it is clever. By-the-bye, where do you get your knives from?"

"From Millikins."

"And your books?"

"I always go to Callous."

"I say, I don't think you have changed your dissecting coat, have you?"

"Hust, hush; the people in the next box will hear; they all think now that it is the woodcock, a little too gamey."

This was quite sufficient for me; I had been for some time aware of a strange odour, but I had laid it to the account of the woodcock. No sooner, however, did I discover the true origin of it, than throwing down my money and seizing my hat, I hastily sought the open air.—*Mirror*, March 8th, 1823.

The Niggers.

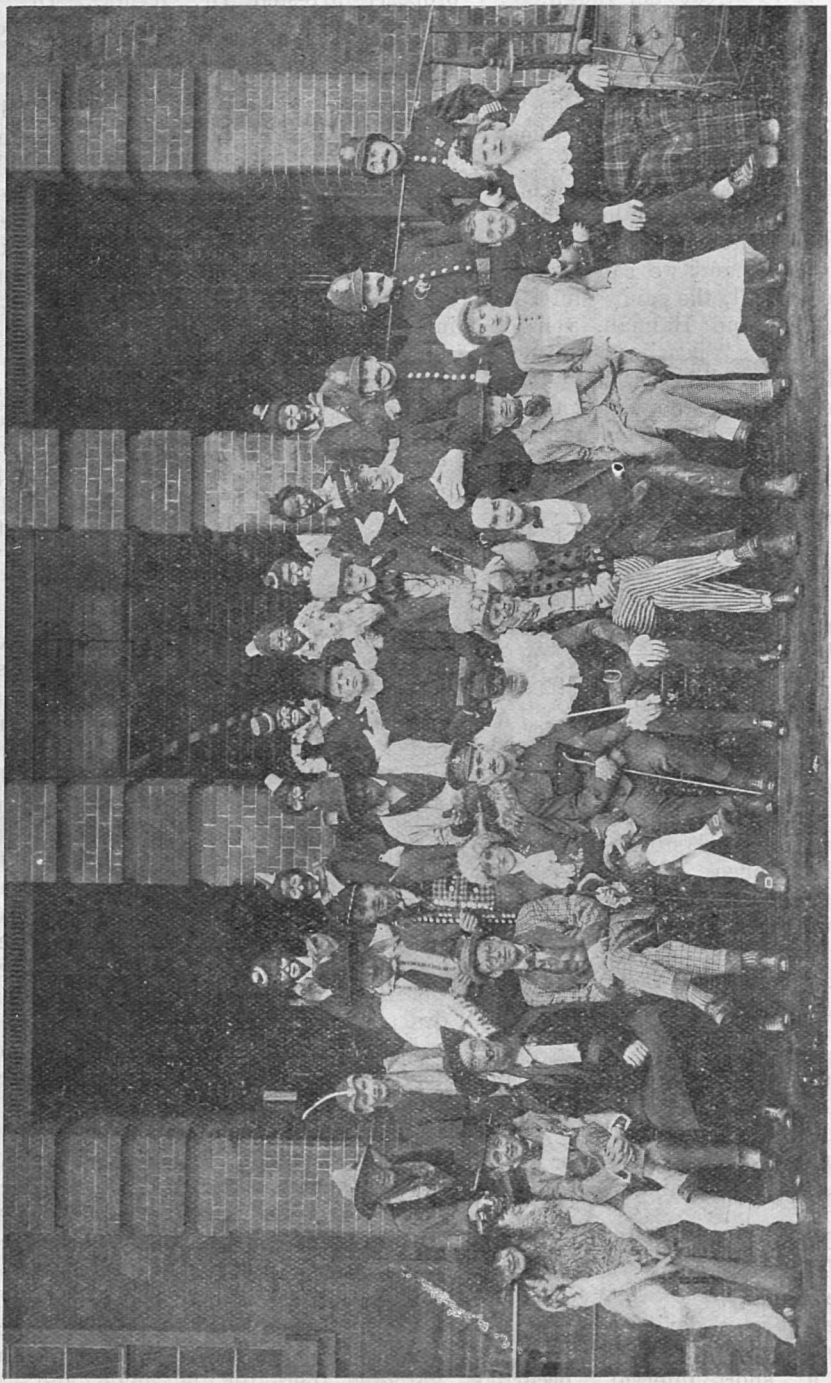
By our Dramatic Correspondent.

IT was a fine morning on Christmas Day, and the Hospital basked in peace and goodwill. In the Park the Treasurer was wishing Matron the compliments of the season in a dignified manner entirely consonant with the traditions of a blameless institution about to celebrate its two-hundredth birthday, when suddenly a distinguished genito-urinary specialist disguised (but very thinly, so the Cornelius patients said) as a pre-historic cave-man came leaping across Maze Pond from his lair in the College and stormed the Colonnade steps. Sister Astley Cooper, observing from her window, made a mental note of the number of her empty beds, but luckily the nerves of the group in the Park had not yet been frayed by the subsequent strain and strains associated with a Guy's Christmas. The Treasurer merely smiled the indulgent smile of one who knows that boys will be boys, and you can't make 'em girls, while Matron exhibited all those qualities of fortitude and presence of mind which years of nursing at Guy's alone can give. The camera men did their worst, and the Niggers had begun another annual trek, but not before the Padre, with an eye to future preferment, had seized his chance of shaking hands with the Bishop and his chaplain while those dignitaries were in a cheery frame of mind.

The Bacteriological Department having insisted on a "ruthless beginning" this year, several ladies appeared at the windows of the dark room to play Juliet to their particular Romeo, serenading them from the pavement. But the authorities were still in the Park, to say nothing of the parsons and policemen in the troupe itself, so it was not long before this variation gave way to the first regular trun in Mary. Here "Nobby," looking very becoming in the King's uniform, placed a good goal with his advice on bobbing or shingling, and Uncle Sam, a very cheery Yank, Koerner in evening dress and "Jimmie" as Robin Hood made débuts which showed the critical audience that we were in for as good a Christmas Day as we have long learned to expect from the Niggers. The patter between the turns was revealing a judicious admixture of chestnuts and "new ones," while the opening chorus (which every child in the Hospital, having heard it twice, now knew by heart) was going well to the tune of "The Two Obadiahs"!—

"We've come to add a headache to your other
Christmas woes,
As the Residents of 1924.
We make a lot of noise, but the reason, I suppose,
Is, we're Residents of 1924.
We have voices just like foghorns, if you
gather what we mean,
And we've broken lots of windows from "Cornelius" to "Queen,"
While the only songs we *really* knew were
censored by the Dean,
For the Residents of 1924.

In "Esther," the "Ethiopian Eight," alias the Clinicals, very effective and quite unrecognisable, couldn't find their "Pom," while "Guido" and Millis, *par nobile fratrum*, in convincing checks, made such excellent bookies that we think we know how they spend their Saturday afternoons. The aforesaid cave-man now showed us that contrary to all appearances he really did possess a human voice. And so up to Queen to the strains of "The Policeman's Holiday," with the following libretto:—



THE NIGGERS, 1924.

Back Row—T. M. Fripp. W. F. Roper. A. C. Hampson. N. F. C. Burgess. H. E. Blake. R. J. Cann. J. Grey. E. H. J. Berry.

Middle Row—I. W. Cann. J. C. Hewitson. C. S. Hallpike. C. H. Colwill. W. A. Mill. H. J. W. J. Westlake. W. R. Spurrell. W. S. Hunt. A. T. Fripp. F. R. Boland. W. H. Craib.

Front Row—W. F. Payne. R. B. Fawkes. D. J. P. O'Meara. D. B. Whitlock. T. S. Blacklidge. E. E. Neser. L. G. Housden. S. P. Jacobson. E. H. Koerner. G. C. Millis. L. W. Houghton. D. Vaughan. B. G. Scholefield.

"Now we think that you have had enough,
Though our motto is to 'treat 'em rough,'
Noise is good for anyone that's sick.
But we can't help feeling we're a bit too thick.
In a moment, when we all have gone,
Nurse will give you each some 'omnopon.'
Don't forget to give our love to Auntie when you write.
Wish you all a Merry Christmas! Goodnight!"

The President of the Residents had chosen Harlequin, and now we know, Mr. Editor, what really becomes you best, and we can't understand Stingo Stungo at all, the saucy slut. By the way, between her and Hannah, you do have rotten luck. "Col.'s" pearlies were more successful with Matilda, while as for "Pat," but there, everyone at Guy's knows that there's no holding "Pat." Even cold cream and stilettos have lost their terrors for him so long as they are wielded by feminine lips and hands. However, Koerner, the misogynist, held the balance even, and the Police (the O.P.O.'s, unfortunately minus Sergeant Parsons, a casualty), concluded the Nigger's visit to Bright with an assurance that at all costs discipline would be maintained:—

"Please don't mention it to Matron, as she asked us not to tell,
But she has asked us all to join the Staff,
For she says since Arabella left the place has gone to h—,
And Sisters do not do their jobs by half.
If the Head Nurse is found sitting while the H.P.'s take their coffees,
Or even on the table seems to lean,
Our duty is to rush her to the Office—to the Office,
While Sergeant takes the H.P's to the Dean.

We must open all their letters, since dear Matron is so grieved
Some hussies have had letters from a man.
This regrettable disclosure we could hardly have believed,
Had Sergeant not been told by Sister Ann.
With the Matron in the mornings we will do our daily round,
And coach the Nurses for their State Exams;
At the Nurses' Thursday dances useful partners we'll be found,
For the Sergeant is a devil with the Lambs!"

At this point a "short interval" occurred during which nobody except the R.M.O. knew what became of the Niggers, but they re-appeared at 2 p.m. in Stephen, where in pursuance of the above intentions the police very properly arrested Dr. Ryffel. Dr. Fawcett arrived in this ward in time to hear the special allusion which was made to him and was understood to say that he detected in it "nothing very definite." In Addison (where, all dinners being now eaten, the audience began to assume its customary proportions) "Nobby" explained how an operation had been performed under anæsthesia induced by a single glance at the photo of the girl he left behind him, while 'Dave" keeping "Jacko" company as an American, introduced the wild west element into the programme.

Another short interval, and then O.P. But I can't do it, Mr. Editor. You know quite well that I was engaged for legitimate drama, and am no authority on "tight scrums." Ask "Nobby" or "Bernard." All I can say is that if you got into O.P. that afternoon at 3 p.m., Heaven help you, because Sister could not.

The lifts broke down, so great was the rush for Evelyn, but people got there in time to hear Vaughan in Buttons on Felix and Spurrell in one of the best costumes of the troupe as "Johnnie Walker." Several Niggers had kept their début for the surgical wards, and we now heard Mill as a cowboy in Pat. and Sam. among the sunflowers (both the strong-rooms were found to be occupied next day); the Right Reverend A. H. J. W. J. Westlake and "Bernard," who beat the drum all day (and has since been warded) in Dorcas; and Tommie, a sixteenth-century Beau in delightful keeping with the charming decorations of this ward, and Houghton as a Sister, in Charity. Houghton, by the way, did a great deal of the accompanying, and her "entry" and "business" were funny beyond praise. The Niggers often reveal mistaken vocations; Houghton revealed a mistaken sex. In Luke, Hunt, who played parson to Westlake's Bishop with spectacular effect, came into the programme for the first time, and after the last interval we had Hallpike as a Mexican bandit in Job, and "Lawrie" as a second cowboy in Lazarus.

Even the Niggers come to an end at last, but there were two unrehearsed incidents in Astley Cooper. As usual a huge crowd had gathered there for the finale, and "Pat." received a well-deserved encore to which he responded with clever variations "on behalf of the tennis club." But the other incident was

the real sensation. A certain Nigger, who had been struggling with a brain-wave all the way down from Evelyn, asked Massa Johnson a brand-new riddle which was not in the book of the words at all. The rest of the troupe nearly fainted, but we were now very near to "The King," so we just held out. So had the Niggers' voices; by the way, they were not nearly so hoarse as they generally are in Astley Cooper. As they said themselves, "Why, oh why, oh why?" The costumes were good this year, very good.

It was Boxing Day morning and a wintry dawn was breaking over the Borough. Enquiries among the Night Nurses revealed that many sleeping draughts had been given, but they had seemed singularly ineffective in the wards along Maze Pond: the College saw to that alright. There seemed also to be considerable mental confusion among the still drowsy patients. We hear that Night Sister was mistaken for the Ogo-Pogo and that a ward maid was addressed as Stingo-Stungo, while it became increasingly obvious that parsons, Yankees, policemen, cowboys, bookies, and beyond everything that nightmare of a caveman, complete with club, and his ginger coiffure, neither shingled nor bobbed, had been busy with the patients' dreams. One harassed Head Nurse asked her Pro. in the words of the programme (quite up to sample, by the way), "Whatever made you want to be a nurse?" "Heaven knows," wearily answered the Pro. Strings glanced at her with elder-sisterly pity, "I doubt it," said Strings.

Christmas Concerts.

Charity and Luke.

A LARGE and discerning audience gathered in Charity on Monday last, confidently expecting to find that Charity Concert would be, as it always is, the best of all the the ward concerts, and they were in no way disappointed. All the favourites of former years were there to make up the nucleus of a typical Charity concert. Mr. Corelli Windeatt's Orchestra we have heard and admired many times before, but never have we heard it play better than on Monday. Miss Helen Mar came and told us stories; some of them we have heard her tell before, and we chuckled as we remembered them, but the greater number were so freshly made and so freshly told that we were left helplessly guffawing after every anecdote. It was really cruel of the producer of the concert to include in the programme in addition to Miss Mar two other humourists of the calibre of Mr. Fred Morris and of Mr. Harrison Hill. By the time these gentlemen had finished off the work Miss Mar had begun our sides were so sore with laughing that it was with difficulty that we sat still and quiet while the band went on with the concert.

But if the humorous side of the concert was so good it was equalled, nay, surpassed, by the more staid and sedate side. The mention of such names as those of Miss Olive Sturgess, Miss Lesa McFarlane and Mr. Granville Hayes is sufficient guarantee of this. And I had almost forgotten to tell you that Mr. Sonnie Hale brought his Chile Bom-Bom down from the Duke of York's Theatre, and that he and Bom-Bom fought out their song and dance as well as they might on the rather restricted space of the Charity platform. We hear on good authority that Mr. Hale brought Bom-Bom down again on Tuesday to another concert and that they repeated their melée just to let Guy's see that Bom-Bom had recovered completely from being concussed against Charity ceiling.

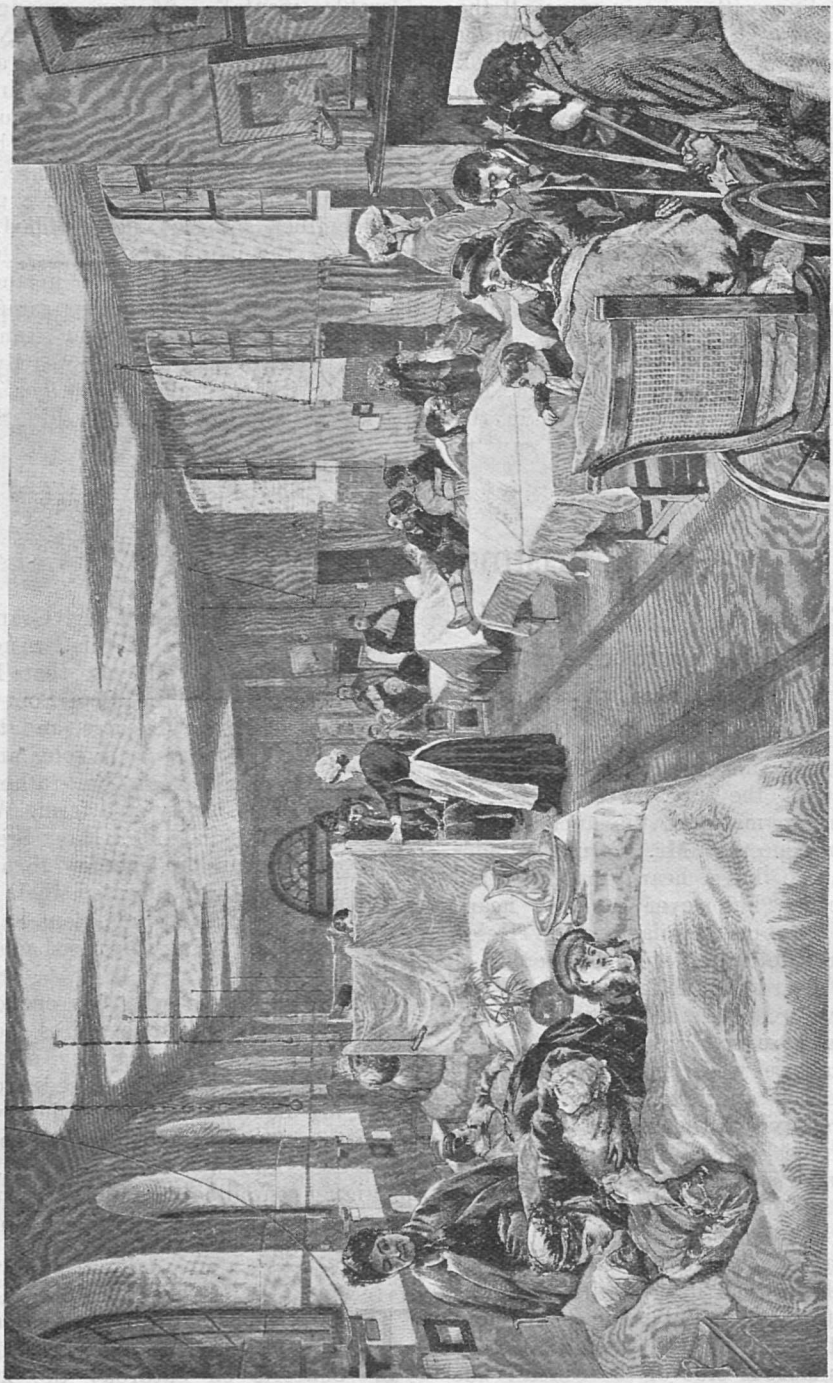
Miss Marie Fane who has one of the most powerful female baritone voices we have ever heard, also sang during the afternoon, and Messrs. West and Lewis played a cornet duet.

We are not exaggerating when we say that Charity concert was better this year than we have ever known Charity concert. There is no higher compliment we could pay the talented artistes who helped to make it so successful.

Queen.

TRUE to chivalry, "Women and Children First," Queen opened up the round of Concerts on Saturday the 27th December, at 3.30 p.m.

Eight Little Nigger Boys entered. They walked straight up to the piano and suddenly



Reproduced from "The Graphic," Feb. 5th, 1887.

Visiting Day at Guy's Hospital—in the Accident Ward, 1887.

the tallest of them, a handsome youth, got up and rendered two drum solos, accompanied by the other seven on their vocal cords.

The inmate of Cot B, Victoria, told me that they were our Clinicals dressed up as Niggers but I still cannot see the joke.

Mr. Sears in a deep baritone voice next gave two songs. We enjoyed them immensely and were prepared to keep him at it for the rest of the day, when a funny-looking man dressed in white with black spots all down his front and a wind screen in one eye came on the scene and tried to convince us that he was jolly sorry he married his wife. As he did not look it, we did not believe him, so he left.

Miss Daw then sang two songs, followed by Nurse Evans. They were accompanied by Mr. Benson.

At 4 p.m. Sister Johnson and her band entertained the ward. They would have been acclaimed vociferously only everybody was busy eating cakes and drinking tea. However, the band told me that they did not mind, as the sympathy they received at the end of their performance quite made up for it.

Another band was due to follow, but as one of the musicians was not a member of the union, they could on no account play. That was that. They did not seem to mind their members singing, so two of them got up and sang.

A charming lady next sang to us some good English songs, whereupon Mr. Mackenzie got up and in full-throated Scottish accents told us something about the "Hielands." Nurse Holmes obliged by tickling the ivories.

Mr. Harford introduced the "Three Hong Kong Ladies," who rendered a combined musical item.

Suddenly at 5.35 p.m., when everything was going along peacefully, three stalwart policemen raided the place, searched everywhere, and were jolly unlucky, because we had no whisky in the place. They sang a song and left. The programme was closed with another song by Miss Daw. A vote of thanks to the artistes was proposed by Mr. Colwill and heartily seconded by us all.

Lazarus and Martha.

IT was said that Monday, December 29th, had a treat in store for us in these wards. so, following in the august footsteps of Matron and Mr. Whitbread, we buttoned our coat about our ears and entered wintry Martha. A real old-fashioned winter it was in there too, a snow storm, much ice, and lots of well berried holly. Such realism must have meant a tremendous amount of work. Lazarus, whence the artistes entered, was springlike with its daffodils, so the storm must have been a shock to them, little realising that "If Spring comes, can Winter be far ahead?" Warm-hearted Davy Burnaby shivered visibly when he came in; we thought he would be all right, for we know he and his fellow Co-Optimists Stanley Holloway and Wolseley Charles have warm hearts, as shown by their kindness in fitting a visit to Guy's into an already strenuous day. Similarly Miss Peggy Marsh and her friend came straight along from a matinee at the "Punch Bowl" a much appreciated visit.

The varied programme went with a swing, the only fly in the ointment being the absence of Mr. Laddie Cliff, whom we had hoped to have with us. We had a skilled violinist in Miss Ensor; ex-Mrs. "Five" produced a husband whose harp solos were greatly enjoyed; Gallagher, in excellent voice, gave us some songs, as did those popular Niggers, Pat O'Meara, Guido Fawkes and Bill Pain. We saw with relief that Pain's curious proportions of last Thursday were not permanent, and that Guido does not always look so disreputable as on his previous appearance. Pat, feeling some make-up necessary, quickly became the compleat Eyetalian with the aid of a slouch hat and a nurse's cloak, and his pathetic ditty about the ladies of Italy was received with much enthusiasm. Two indefatigable ladies sang and banguléléd to us, and then came the pièce de résistance, the Co-Optimists, who received a great welcome and at once proceeded to "put it over" in their own inimitable style. Miss Peggy Marsh sang and danced, the latter a great feat on such a small stage; she was very ably accompanied by Benson, who accompanied throughout the afternoon as well as playing solos.

Sisters Martha and Lazarus entertained us to a wonderful tea, and we appeared to regard the mountains of cakes as a challenge, for they soon dwindled. One felt extremely sorry for the "gastric" from Addison, such difficulty was found in finding food in his line.

But enough of this; let us not talk of the mystic means by which fractious babes were kept quiet, or of how the festivities drew even the night nurses from their lairs. Let it

suffice for us to thank very heartily all the performers and Sisters Martha and Lazarus and their helpers, for a very enjoyable afternoon.

Patience and Samaritan.

IT is just too wonderful how people were produced from every nook and cranny to perform in Pat. and Sam.

After everyone had let everyone else down —some lightly, some with a nasty jar—it appeared that no one had the courage left to jump on to the platform and sing, dance or make faces, each to his taste. Then, wonder of wonders, songster followed songster; a comedian made everybody laugh; policemen came from the Borough; niggers from California; a conjuror took all our valuables and hid them (this trick is sometimes known by another name).

Then joy, Miss Goldberg, after having deceived us by placing all the music on a chair and sitting on it, played us some Beethoven.

Every one had paused for breath, when suddenly Wee Georgie Wood came scrambling through the sunflowers and introduced us to Mr. Benson, the Teddy Bear, his College friends on the floor and any other old thing he could lay hands on. Everyone screeched with delight. Fortunately someone realised that this oozing of artistes, from the void, on to the platform, might become an unending mania. He jumped onto the stage, gave three frantic cheers, sang "God Save the King" and closed the concert.

Only just in time. Sonnie Hale with his Chili Bom-Bom and other stars had already commenced to rush in.

Baby Ward.

LIVING up to its hard earned reputation the Baby Ward was once again overtaken by malignant fate on the eve of their Christmas Party—this time in the guise of Chicken Pox.

Nothing daunted, however, the patients decided to make the best of a bad job and amidst chants of what sounded like "Babies don't care," but which may have been nothing more than "infantile gurgles," the Baby Room decided to have a party all to itself. And what a party!!! Enormous sugary cakes, and chocolates and sandwiches, and the Xmas Tree. What mattered it that 90 per cent. of the children were on "fluids only"—this wonderful display of good things helped to remind us that it was Xmas—and anyway the grown ups who came seemed to enjoy the fare immensely. And the visitors!! We had all sorts of imposing people including whom do you think? Why Matron herself and she stayed and played with us all and it was great fun.

After tea, when everyone was beginning to wonder what would happen next, a knock came at the door and there was Father Xmas. He looked awfully hot and bothered and his hat was too big for him—I expect he must have had his hair cut recently or something—anyway he'd evidently had a very busy day already with parties and things, but he seemed to know the names of the babies, though he kept on mixing up "Alec" and "Albert," which was rather silly. He gave us such lots of toys off the Xmas Tree. We hadn't time to open one parcel before we found we'd got another. It was all very bewildering and exciting. Father Xmas didn't bring Matron a present though, which was very sad, but she helped us play with ours, which was great fun.

When we'd all got our presents Sister let us have the gramophone, and do you know Father Xmas danced with me. He was a funny old man and he didn't dance very well, and his beard all sort of got on one side. I wonder how that happened?

Presently Santa Claus said goodbye and went away by the door. I wish he'd gone up the chimney, but praps it *would* have been rather hot, as there was a big fire.

Then all the mess had to be cleared up and the cots put back and we went off to sleep to dream about a funny little chicken pox bump dressed as Father Xmas dancing up and down on the top of the tree.

What awful fun we had, I do think it was kind of Sister and all the nurses to give us all such a good time.

Addison.

THE Concert in Addison was held on Saturday, December 27th. SISTER and the Ward Clerks had ornamented the ward with giant yellow crackers, together with the more conventional decorations, and the concert was preceded by tea, when all the patients wore Christmas hats.

Mr. Jacobson, who, it will be remembered gave the patients an immortal rendering of the song which deals with the difficulties in dealing with an American Sweetmeat, had collected an enthusiastic band of performers who

did their best (or in some cases it might be said their worst) to entertain the large number of visitors which the central hall could scarcely accommodate.. The performers could have been divided artistically into two classes; those who with self abnegation attempted to interpret music as an Art, and those who with their own personalities, consciously or otherwise, caricatured various aspects of life. In this distinction it must be understood, there is no hint at the superiority of either class, nor would it be wise, when one reviews the ideas of present day youth, to attempt to define them, focus them or contrast them.

Miss Ensor and Miss Jones were both applauded for their *interpretation* of violin solos, while Miss Everson and Mr. Home gave an amusing pantomine sketch. This was followed by "I love you so," from Chu Chin Chow, sung by Miss Sybil Evans, and let those who had not the privilege of hearing her remember the best rendering they have heard of Liza Lehmann's Bird Songs, for Miss Evans has such a voice as could give a sincere expression of the subtle modulations of those songs.

In the second class, if we preserve the division suggested before, was Mr. H. Selby, who gave caricatures of Molière and of the Penurious Polygamist in "Archibald." Miss Bird, in spite of her imaginary difficulties, was persuaded to recite Rudyard Kipling's "Gungha Din," and songs were given by Miss Constance Daw and Miss Davies. Mr. T. G. Scott, quite the most popular of the entertainers, now portrayed the Thrifty Outcast in "Seven and Eleven," and his antics on the edge of the slenderest of platforms, where he was pushed by his accompanist, Mr. K. C. Billingham, brought howls of laughter, especially from the front of the audience. It will be enough to say that he was prevented from standing on his head on the top of the piano only by the precipitous flight of the accompanist, who feared for the integrity of his bony skeleton. However, after a short interval he was persuaded to return and joined with his more acrobatic confrère in singing limericks, One of these, provided by Dr. E. P. Poulton, was:—

A tutor who tooted the flute,
Once taught two young tooters to toot.
Said the two to the tutor
Is it easier to toot or
To tutor two tooters to toot?

The accompanist then began to sing on his own account, and perhaps the song most appreciated was "I wish I had a Teddy Bear."

The Clinicals with black faces told how their number was decreased in arithmetical regression from nine to none by something which was regarded by each as a peccadillo, but which found great disfavour with the Powers that Be. Three O.P.O.'s—Mr. L. G. Housden,* Mr. H. W. Craib, and Mr. E. R. Boland, dressed in blue uniform gave us an account of their daily duties, which included the harrying of lovesick youths and maidens. They carried in a wreath in recognition of the illness of him who could admirably have completed the quartette, Mr. K. O. Parsons, their Sergeant.

It was an interesting and entertaining concert, and the organisers are to be complimented on the wealth of talent they were able to discover.

Esther.

THE Annual Christmas concert was held in Esther Ward on Monday, December 29th, with a large and appreciative audience of patients and others. The Clinicals gave the programme a good send-off with their song "I can't keep a wife," followed by Mr. Geoffrey Rake, who sang the Kashmiri song with taste and feeling. Miss Plumbridge gave fresh charm to two old favourites, "The Hills of Donegal" and "The Valley of Laughter," and Miss Burgoine followed her, singing with great sweetness.

The O.P.O.'s were more impressive than ever in their police uniforms, and gave us an uplifting account of what they would do upon their appointment to the Nursing Staff.

Mr. Selby made a popular appearance, amusing everyone with his stories and songs. Mr. Granville Hays delighted us with his fine voice in "Mephistopheles," and was encored with enthusiasism. Mr. Harrison Hill worked wonders at the piano, turning jazz into hymns and imitating a street organ. He also made the audience join him in begging his "Juliet to come out upon the Balcony." Miss Helen Marr entertained everyone with some excellent stories told in her own inimitable way.

Mr. Fred Morris sang that well-known ditty "Shall I have it bobbed or shingled?" and tried to race the younger members of the audience in singing the chorus.

Miss Olive Sturgiss gave us two songs. Her wonderful soprano voice was received with great delight.

*Promoted for the day.—ED.

Perhaps the most popular item on the programme, possibly because an instrument little known by the majority of the audience, was the harp played with great delicacy of touch by Mr. Fields.

So ended a most successful concert, and thanks are due to the Clinicals who have worked so hard to get it up, and in particular to Mr. Fripp.

[Chief thanks, however, are due to Sister, who had all the hard work and supplied most of what Sir James Barrie sums up in the word "charm."—Ed.]

Stephen.

ORANGES and Lemons, say the bells of St. Clement.
You owe me five farthings, say the bells of St. Martins.
When will you pay me, say the bells of Old Bailey.
When I grow rich, say the bells of Shoreditch.
Here comes the candle to light you to bed.
And here comes the chopper to chop off your head. . . .

But someone asked me to write up the Stephen Concert!

It just proves what a lot there is in *atmosphere*! For as I sat—the sole press critic present—listening to the charming singing of Miss Burgoine and Miss Daw, interspersed with the lively stories of Mr. Percy Clark and the drollery of Mr. Selby—those luscious fruits that hung so temptingly around me quite carried me to the nursery and "the o-o-olde days."

Neither did the Niggers or the Policemen disillusion me, and if Mr. Murdock MacKenzie with his songs of Scotland and Mr. Rake with his songs of Araby *did* strike a little less frolicsome vein—well they fitted in much better than the usual Daddy and Uncle turns. Then there was the gentleman fiddler and his friend—whose names I am very sorry to have forgotten, though I'll remember their music quite a long long time—and last of all, in the middle (of the programme and of me) was the scrumptious tea Sister provided.

Altogether it was a happy little fellow who seizing the candle toddled off heedless of the chops and choppers that awaited him—to a Saturday night in the Front Surgery.

The Lydia Christmas Tree Party.

ON Boxing Day the Annual Christmas Tree Party was held in Lydia. This is always the case with Lydia. Some parties there is no holding at all, but the guests in Lydia always bring their best party manners with them. First, there was a Punch and Judy Show with a man in a night-dress outside, and a real live Toby. I think the man's name was Wee Willie Winkle, but when I called him that he said "go away" so gruffly that I thought he was cross. I think now that he must have been just playful and have meant "Oh, go on," like the ladies say when they suddenly feel coy or come all over shy-like. Wee Willy had some pipes and a drum, which he kept trying to play, but Mr. Punch would keep on talking to him, so that he couldn't play for very long at a time. Sometimes I thought this made him rather annoyed. Everybody laughed like anything at the Punch and Judy and got nice and hungry by teatime, so that it was a good job there was plenty to eat. As the little boy next to me said, with the sigh that comes when you don't think you can go on much longer, "As soon as I've eaten this, someone wants me to have some more." It was all like that; someone kept on wanting us to have some more, but the party manners made us say, "No, thank you," very politely when we were quite full up to the top. So then we went into the Tree and sat round it on the floor, and Father Christmas came in through the window. He was a lovely Father Christmas and kept on talking to us and making us laugh, and even the smallest of us, who were too tiny to understand what he was saying, laughed and clapped when the others did. Everybody got toys from the Christmas Tree and, as Father Christmas remembered that he is usually taken home before the party is over, little Master Hughes got his almost first. He wasn't expecting one, and his name had to be called out ever so many times before he knew it meant him, and then he went up and got a funny man on a cork. Master Gibberd got a little man with a big head, which waggled so much that Father Christmas was afraid to give it to him in case it came off, so they both stood there and tried to stop it waggling. Then he called out for Master Gaymer-Jones and he was just behind him, but Father Christmas didn't know that, and looked all round the

wrong side of the tree before he found him. Everyone got something and Tommie was so long toddling up to the Tree to get his motor that Father Christmas wound it up and made it run along the floor to meet him. Soon the Tree was empty and Father Christmas said "Good-bye," and hoped we should all be there again next year, and we hoped so too, and gave three cheers for Sister, who gives us such lovely parties.

The Underworld.

THERE are six souls, who live in the underworld; there are one or two who pop in and out and look after them; but those six are cut off from the real world and live in a land of make-believe. They make-believe of everything. They make-believe that it is Sunday or Monday or Friday or Christmas—but they are never certain. For nobody goes to tell them what it is and they can't tell by the sun and the stars, because there are no stars and they can't see the sun. Their home is all narrow passages and little burrows and once, when a mouse got in by mistake, he went running round and round for days and was found at last lying exhausted on a half-digested map of Hampton Court Maze. But on Christmas Day this year, the six souls were able to put their calendars right, for they received some visitors from the big outside world.

Just ordinary, everyday visitors, there were a policeman, a book-maker, an Italian bandit, Johnny Walker and a Harlequin. They brought with them some American pop-corn and some songs, and when they began to sing, the four big souls laughed and the two little souls cried. And what it was they sang was "It ain't agoin' to rain no more." The big souls laughed for they knew that it makes no difference to the Underworld whether it rains or not, because they do not see it. But they didn't know that years and years ago there was a storm in the big world up above, so terrific that the rains came sweeping down into the underworld and threatened to drown the souls, who lived there then, and the pretty nurse, who looked after them, so that it took her the whole night to bail out the water with the help of a noble youth from the world up above. The little souls must have known this, because they cried. And when the visitors from up above had gone, and the souls had made-believe that the Christmas Day was over, the lights were covered with rose-shades and they went to sleep and made-believe that they were no longer in the underworld, but in the jolliest ward in the Hospital, where everyone who came in was laughing and whispering secrets, so that their faces reflected the colour of the rose shades and the souls muttered in their sleep "Not isolation, but insolation."

The Out-Patients' Dance, Boxing Day.

OH the O.-P. Hop, the O.-P. Hop,
Everyone is wishing that it didn't have to stop.
For the band plays loud and the band plays fast,
Any every single melody is better than the last.
Everyone, who's anyone, anyone at all,
Has come to spend the evening at the O.-P. Ball,
And they dance on their heels and they dance on their toes,
And they dance on other people's as the big crowd grows.
Every single Sister, including Sister Anne,
Came tripping to the Ball-room, when the dance began.
And even Mr. Eason, when he heard the magic flutes,
Found all his toes a wriggling in their patent-leather boots.
"Screech" went the saxophone and "flipp" went the drum,
And the noise of all the dancers almost reached to kingdom-come.
While one little Registrar, who came in all alone,
Found nobody to hold him back and started on his own.
The band plays a "One-Step," the band plays the "Blues,"
But the men without exception are just dancing what they choose.
Running round and round and round and hopping like the birds,
Or doing all the latest steps too wonderful for words.
H.-P., Ward Clerk, Clinical and Nurse,
Point their toes and curtsey, waltz around and then reverse.
Miss one, pearl one, two rows plain,
Drop one, accidental-like, then start the round again.
"May I have another one? Well book me number ten,"
All the smallest Sisters dance with all the tallest men,
Gazing in their partners' eyes or looking very staid,
And keeping up their energy with tea and lemonade.
The time goes "whizz," and the clock says "eight,"
And everyone says, "Goodness me, its getting very late.
We don't want to stop, but what are we to do?
We want to go on dancing till our shoes wear through."
"God save the King." And the Boss says "Stop,"
So we thank you, Sister, kindly for the O.-P. Hop.

Sport.

Tennis.

THE Annual General Meeting of the Lawn Tennis Club was held on Tuesday, November 18th, 1924, at 4.15 p.m. in Classroom No. 1.

Dr. J. Fawcett again kindly took the chair.

The following Officers and Committee were elected for 1925:—

H. Lewis-Philipps was re-elected as Captain and L. Parker Tupling was re-elected as Hon. Sec.

Committee.—P. D. B. Spence, A. H. Musgrove, V. G. Boyle, D. Lurie, A. H. Russell, J. Hilton, S. Cohen, H. C. Van den Broucque.

The "Blues" Committee have awarded the following tennis "Blues" and "Half Blues" for 1924:—

Full Blues.—D. Lurie, V. G. Boyle.

Half Blues.—A. H. Musgrove, L. Porter Tupling, D. A. Newberry, F. R. Ratnager, A. H. Russell.

Reviews.

Medicine.

The Insulin Treatment of Diabetes Mellitus. Second Edition. Published by Messrs. Cammidge.

ALTHOUGH the discovery of insulin was only announced in 1922, the volume of literature which has grown up around it is so vast that for students and practitioners some small and reliable book, giving in a concise form the most recent views of the leading authorities, has been badly needed. This want has been supplied by the author of this little book.

Although only first published at the beginning of this year, the 2nd edition has already appeared and the opportunity has been taken to include a summary of the most recent work on the subject. This includes notes upon the Use of Insulin in Non-Diabetic Conditions, on the Relation of Tuberculosis to Diabetes, and the treatment by Insulin in these cases, and further notes of clinical importance dealing with dosage and administration.

The book can be thoroughly recommended to all who desire to be up-to-date and to have a scientific knowledge of the use of insulin.

Recent Advances in Medicine. BEAUMONT AND DODDS. Published by Messrs. Churchill.

DURING the last few years the investigation of disease by laboratory methods has made great strides—whilst few of the details of technique are described with any degree of accuracy in the Medical Text-Books. In the above volume the authors have endeavoured to correlate the latest advances in the Bio-Chemical and Bacteriological Departments with the clinical side of medicine—i.e., to "form a link between the wards of a hospital and the laboratories." The result is a book that will be found invaluable both to the senior man in the wards, and to the post-graduate working for the higher examinations.

There are excellent chapters on Blood Estimations, Diabetes and Gastric Function—to mention only a few. The only adverse criticism we can offer is that some of the methods might have been described in less concise a manner, and thus made some of the matter more readable. Apart from that it is a book thoroughly to be recommended.

Hospital Information, etc.

The Rowing Club.

AT the Annual General Meeting of the Rowing Club the following officers were elected.

President.—Mr. R. Davies-Colley.

Vice-Presidents.—Mr. Mollison, Mr. McNair, Dr. Ryffel.

Captain.—E. T. Clifton.

Secretary.—E. C. Huddy.

Committee.—I. C. P. Beauchamp, W. S. Grove, K. S. Keele, W. H. Miller.

Change of Address.

H. G. R. Canning, 8, Wimpole Street, Cavendish Square, W.1.

G. W. F. Underhill, "Willowdene," Langley Park, Mill Hill, N.W.7.

Specialities.

"Steraid" Series of Absorbent and Medicated Gauzes.

Messrs. ROBERT BAILEY & SONS, LTD., Marriott Street Mills, Stockport.

MESSRS. ROBERT BAILEY & SONS, LTD., the excellence of whose dressings is well known, have originated a new departure in the packing of surgical bandages, which enables them to retain their aseptic condition, and at the same time be always ready for use.

The absorbent and medicated gauzes called the "Steraid" series are placed in patent containers, and when required for use (they are not touched by hand) a rotary movement draws out the amount needed, which is then cut off, a second rotary movement reseals the remainder in the patent container so that there is no risk of exposure to dust and atmospheric germs.

"Aerophor" Pearl Bath Apparatus.

THE HOLBORN SANITARY COMPANY, Sardinia House, Sardinia Street, Kingsway, W.C.2.

THE "Aerophor" Pearl Bath is a soda-water one, and has been found very successful in the treatment of the following ailments, Organic Heart Disease, Vein Hardening, Nervous Palpitation of the Heart, Nervous Irritability, Nervous Dyspepsia, Sleeplessness, Rheumatism, Gout, Neuralgia, etc. It has this advantage over the carbonic acid gas bath in that it quiets and soothes the whole nervous system, and reduces the blood pressure. There are two types, "A"—a water driven apparatus for use in private houses, and "E"—electrically driven for Institutions where several baths are in use.

It is economical, as periodical visits to Continental Spas are rendered unnecessary, and so considerable expense is saved. The "Aerophor" has met with great success both in America and on the Continent, where the principal Hotels, Hydros and Hospitals have it, besides Medical Practitioners.

The Holborn Sanitary Company have an "Aerophor" installed at their Showrooms at the above address, and will be pleased to give a demonstration to callers interested in it.

Birth.

LANSDOWN.—On 26th December, 1924, at 106, Woodcote Grove Road, Coulsdon, Surrey, to Ermyn ("Toni," née Townsend), wife of R. B. P. Lansdown, a son.

GUY'S HOSPITAL GAZETTE

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PASSIM

"There is joy in the life of the big Millionaires,
There is joy in the lilt of a rollicking song,
There is joy in the sunshine—but nothing compares
To the maximum joy of a something, gone wrong."

BOOKS have undoubtedly been written on the various types of national humour. Books have been written on every subject, important and negligible, and the subject of national humour is very important. We have not had the good fortune to read any of them, but that is of no significance at all. There are quite a number of things that we have not read, including even some of the smaller print of Gray's Anatomy, but, being so ill-read, it has always been a puzzle to us to decide in what way British humour was different from French or Czecho-Slovakian humour. The puzzle was not solved until a very short while ago, when we first read the four lines that we have quoted. In them is summed up the essence of British humour. It is the humour of something gone wrong. In the light of this discovery, the typically British joke stands revealed. Take the time-honoured joke of the British workman. He is describing, between his guffaws of hearty laughter, a scene that he has just witnessed. "Just seen a fire, Mate, down at a ware'ouse. Me and ole Charlie was walkin' past when we saw the flames comin' aht o' the winders, and right up on the roof was ole Bill, not knowin' 'ow to git dahn. Seven stories up 'e was and scared fair balmy. Wot d'yer think we does? We jest called up to 'im, ''Ere, Bill. If yer wants ter git dahn, you jump, an' we'll catch yer in this 'ere tarpaulin.' Bill jumped! Lor', 'ow we did larf. We 'adn't got no tarpaulin!!" Something had gone wrong for poor Bill. Really very diverting.

Looking back on past events we can see that it is in this tendency of things to go wrong that real humour lies. What was the most diverting incident in the Residents' Play last year? It was when, after a prolonged and deathlike silence, the heroine jumped up in alarm and said, "My goodness! What was that dreadful noise?" But there had been no noise. Something had gone wrong. The "noises off" had missed his cue and provided the audience with the joke of the evening.

The same underlying principle we have been able to trace in all kinds of humour. Where, for instance, is the greatest humour in modern

writing if not in the misprints,—in the letters, which have gone wrong? Last year, the very public-spirited GAZETTE Committee organised a health campaign with the praiseworthy object of producing posters, of such an irrisistible nature that the populace of London would be forced, after seeing them, to submit to a life of uninterrupted hygiene. As the Committee expressed it—"During the War the Public was postered into patriotism; after the War they were postered into thrift; now let us poster them into health." An admirable precept, but what did the printer do with it? With unintentional humour, he returned his proof-sheet, with these words—"During the War the Public was pestered into patriotism; after the War they were pestered into thrift; now let us pester them into health." The substitution of one small vowel by another had made a laughing-stock of the Committee's scheme, and had at the same time demonstrated the fine, ingrained independence of the British working man.

Thoughts such as these had occupied our spare moments lately, but on the sixth of January they had given place to others of a more serious nature. As we were shown into our seat in the Cathedral and began to read the Order of the Commemoration Service, we were conscious of a thrill of pride in the fact that we belonged to Guy's and of a feeling akin to awe at the thought of all that Guy's meant to the sick of London, England, and almost of the entire world. We read on through the very beautiful service until we came to the Lesson and in that, taken from chapter thirty-eight of the Ecclesiasticus, our reading ended abruptly. For we came upon a verse that jarred as harshly as a discord in a minuet.

"The skill of the physician shall lift up his head; and in the *light* of great men he shall be in admiration."

What a shattering of a beautiful sentiment by one small letter! What ironical humour on the part of the printer! And how near the truth! For though the skilled physician will always be in admiration in the sight of great men, even the poorly-skilled physician, glamouring in the light of the "great," is too often in admiration in the sight of quite small men. He is but an empty shadow and the nearer he is to the light the greater the shadow. If there is one great resolve to be made at the beginning of the Tricentenary, let it be that no Guy's man shall ever be a shadow, an airy, unreal, insincere thing, claiming virtues that he does not possess. In the practice of medicine it is so easy to pose. Cures by "suggestion" are daily becoming more numerous, but they must always be suggestions to the patient with regard to his malady, not suggestions from the Physician with regard to the skill, that he would like to possess. Just as the younger sons of wealthy families, who are "put into the Church," do not aid the work of the Clergy, so do the men, who join the Profession of Medicine as a means to pecuniary gain, act as a brake to the advancement of that profession's good. And to this solemn thought we were led by the unintentional humour of a printer!

THE "Bicentenary" Special Number will be ready next week. Applications should be made to *The Manager*, GAZETTE Office. As soon as copies are on sale in the GAZETTE Office, notices will be posted in the Hospital announcing that fact. This Special Number is *not* being sent to Subscribers as a part of the fortnightly issue. The price is 2s. 6d. post free, and it is hoped that applications by post will be made as early as possible, so that some idea may be formed of the number that it is necessary to print.

THE CURSE.

On February the 4th, 5th, 6th, and 7th, the Residents will produce an entirely new light opera, entitled "The Curse." In spite of the title, the opera is not confined entirely to the unfolding of a tragedy, but contains a love interest of unrivalled intensity. We doubt if a production entirely of this nature has ever been produced before, and those who require tickets, which are entirely by invitation, should apply early *in writing*, stating the date, for which they are required. This applies to all old Guy's men, sisters and nurses and to the present day students. Invitations are being sent to the members of the present Hospital and Nursing Staffs.

Guy's Hospital Bicentenary Appeal.

THE Treasurer is grateful to those old Guy's men who have been good enough to send in the amount of their collections It is only the beginning of the Bicentenary year and the appeal will, of course, continue to remain open, but the Committee are pleased to know from time to time how the appeal is progressing and the amounts collected.

Although the activities and very substantial help of many old Guy's men is greatly appreciated, there still remain a very great number who have been silent over the appeal. The difficulties of collecting in many localities where local hospitals are appealing is fully recognised, but surely every old Guy's man on such a very special occasion as this could reply to his old hospital, and where possible send even a very small donation. The response from the old Guy's Dental men has been very splendid and far above the average of the qualified men in general. May those who have not replied be appealed to once more to help all they can and not to allow this great birthday occasion to be passed by without something from every Guy's man.

The Disguysed Minstrels.

The Disguysed Minstrels are meeting with success upon success and their performance is really excellent. Irrespective of very different kinds of audiences, they have never failed to win their hearts. Each performance adds further praise, and the quite unsolicited congratulations from all sides bear out the truth of these statements. A large number of people, some quite unconnected with Guy's, have immediately asked at the conclusion of a show where their next performance is, in order that they might see them again.

Kenley Memorial Hall.

A performance was given at this Hall on January 8th last. Although Guy's was not very strongly represented in the audience, the applause was splendid and their warm reception was entirely due to the merits of the Minstrels.

For this evening we are greatly indebted to Miss Sedgwick, Mrs. Allender, Mr. Wickings and Mr. J. D. Smith, who were entirely responsible for the sale of tickets and general advertisement of the visit. About £25 was raised on this occasion.

Hurtwood Edge, Ewhurst.

Mr. and Mrs. Rowlands very kindly lent Hurtwood Edge for a performance of the Minstrels on Saturday afternoon, January 10th.

This show must be counted as one of the most successful performances given by the Minstrels, and it is their wish to share this success with Mrs. Rowlands. As Hostess she was responsible for the sale of tickets and all the arrangements. She converted her drawing room for the occasion into an excellent stage and auditorium and she completely opened her house for the convenience of the Minstrels and her guests.

Mr. Eason was at his best in a very moving speech, in which the wonderful work done at Guy's, together with it's urgent needs, was most ably described. Mr. John Rowlands services as programme seller were excellently rewarded by the splendid collection ol £3 2s. 2d. The Minstrels desire to thank Miss Betty Rowlands also for the very kind help she gave to everyone. The proceeds amounted to £40 2s. 2d.

Thanks are again due to Mrs. Eason and Dr. Ryffel for most kindly motoring some of the Minstrels, and also to Mr. H. A. H. Harris, who has not failed yet to place his car at the disposal of the Minstrels for every performance they have given.

Croydon, January 27th.

The Disguysed Minstrels' next performance will be at the North End Hall, Croydon, on January 27th next at 8 p.m. This Hall will hold more than 1,200 people, and help is earnestly asked from all those who live in or near Croydon. The Hall must be filled and this can only be done by the active co-operation of all Guy's men and their friends in the neighbourhood.

Tickets are 5s., 3s., 2s., and 1s. and can be obtained from the Counting House at Guy's Hospital, and from the list of names appearing on the posters.

Dr. Eric Wornum will be pleased to receive the names of any who would be kind enough to advertise this performance or to sell tickets.

Future Performances.

A performance will be given at Watford on February 4th next, and dates are being arranged for Chatham, New Lodge Clinic, and possibly the Bridge House Restaurant again with a revised programme.

The Commemoration Service in Southwark Cathedral

January 6th, 1925.

THERE are many ways of preserving the memory of noteworthy deeds, but the brightness of any such memory is always tarnished when the way selected is not in harmony with the deed that it commemorates. On January 6th, the Governors of the Hospital wished to commemorate the opening of our Hospital two hundred years ago and it is to their lasting credit that they chose the only possible appropriate way for the sole act of commemoration—the beautiful and simple service in the Cathedral Church of St. Saviour's, Southwark. Thomas Guy, with all his eccentricities and his shrewd mind for business, was a simple soul, whose heart was wrung by the sufferings that he witnessed among the poor of South London. He lived simply, he spent grudgingly, but when he gave, he gave with an open hand and a simple, unpretentious liberality to those, who were most in need of his bounty. With no display of pride or self aggrandisement the Almshouses at Tamworth and the Hospital at Southwark were erected and opened and with a most becoming simplicity the Service in the Southwark Cathedral commemorated his latter act of humanity, two hundred years later.

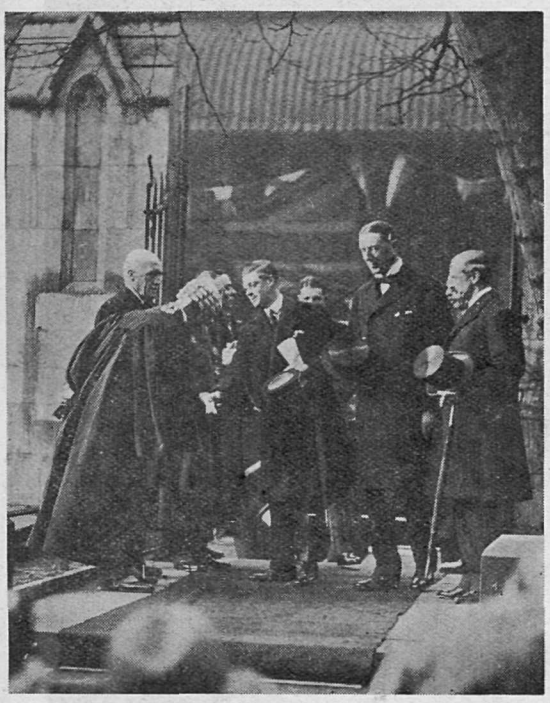
Photo by the London News Agency.
THE TREASURER GREETING THE PRESIDENT.

Photo by the London News Agency.
H.R.H. THE PRINCE OF WALES WITH LORD REVELSTOKE.

For the people of the Hospital, those, who have grown up beneath its shadow and learned to look on it and love it as the one outstanding and understanding friend of their lives, the day was one to live in their memories. For the first time since 1905, when, on July 3rd, King Edward VII. attended its

consecration, a member of the Royal Family was visiting their Cathedral, and they assembled in thousands to greet His Royal Highness, our President, when he arrived at the South-West door shortly before noon. There he was received by the Treasurer, Mr. F. P. Whitbread, Lord Revelstoke, the Chairman of the Appeal Committee, Mr. H. A. Trotter, the Vice-Chairman of the House Committee, and the Mayor of Southwark.

By the time of his arrival, the Cathedral was full and presented an impressive scene.



LORD REVELSTOKE. THE TREASURER.
THE PRESIDENT. MR. H. A. TROTTER.

In the nave sat the greater part of the congregation, the Governors, the distinguished visitors, men, whose names are famous in the world of medicine and science, the members of the Hospital Staff, the students and their friends, and the variety of colour in the academical gowns and hoods was as much in keeping with the general tone of the service as was the stained-glass of the windows with the Cathedral itself.

Among those assembled in the nave were the Hon. Evelyn Hubbard, Mr. Thomas A. Mason, Lord Biddulph, Sir Otto Beit, Major Oswald Magniac, Lieutenant-Colonel R. W. Barclay, Sir Geoffrey Cornewall, Mr. Robert H. Holland-Martin, the Hon. Sir Sydney Greville, Mr. W. E. Stuart-Menteth, Major Reginald Bonsor, Lieutenant-Colonel Hugh C. Fortescue, Mr. Harry Percy Shepherd and Mr. A. G. Gladstone (Governors); Sir Humphrey Rollestone (President of the Royal College of Physicians), Sir T. Bland Sutton (President of the Royal College of Surgeons), Mr. A. D. Brenchley (Master of the Society of Apothecaries), the Deans of St. Bartholomew's, Guy's, St. Mary's, the Middlesex, Westminster and the Royal Free Hospital, Mr. E. A. Gardner (Vice-Chancellor), Sir E. Cooper Perry (Principal), Mr. S. L. Loney (Chairman of Convocation) and Sir Gregory Foster (Provost) of the University of London, Lord Stuart of Wortley, Mr. Leonard L. Cohen, Sir Francis H. Champneys, Mr. Walter G. Spencer and Mr. H. R. Maynard, representing King Edward's Hospital Fund, Sir William Collins, the Secretary of the Hospital Saturday Fund, representing the League of Mercy, and, of the Hospital Staff, Sir Arbuthnot Lane, Sir Charters Symonds, Mr. C. H. Golding-Bird, Dr. John Fawcett, Sir Alfred Fripp, Mr. Montague Hopson, Mr. H. L. Eason, Dr. H. French, Dr. A. F. Hurst, Dr. G. H. Hunt, Dr. E. P. Poulton, Dr. N. Mutch, Dr. J. A. Ryle, Dr. G. Marshall, Mr. F. J. Steward, Mr. C. H. Fagge, Mr. R. P. Rowlands, Mr. P. Turner, Mr. R. Davies-Colley, Mr. L. Bromley, Mr. E. G. Slesinger, Mr. H. Chapple, Sir Maurice Craig, Mr. W. M. Mollison, Mr. T. B. Layton, Dr. C. P. Symonds, Mr. W. H. Trethowan, Dr. H. C. Cameron, Mr. J. L. Payne Mr. E. B. Dowsett, Mr. F. J. Pearce, Mr. F. N. Doubleday, Mr. H. C. Malleson, Mr. F. Bocquet Bull, Mr. G. B. Pritchard, Mr. W. Kelsey Fry, Mr. A. Bulleid, Dr. F. E. Shipway, Dr. A. D. Marston, Dr. E. A. Scott, Dr. J. H. Ryffel, and Dr. C. E. Iredell.

In the south transept sat a group of nurses their cloaks hung over the backs of their chairs, and with their white caps and aprons, standing out from that background of red, they formed the most agreeable spectacle in the cathedral. These nurses sat behind the press seats, but all of the press reports were unanimous in their appreciation of the south transept.

In the front row of the seats, placed in the north transept, sat a group of ladies, each of whom had once been Matron of the Hospital. They were Miss Jones, Mrs. Man-

ning, Miss Young, Miss Nott Bower, Dame Sarah Swift and Miss Hampton, and as Miss Hogg, the present Matron, was also present, though sitting apart from them in the nave, the presence of seven Matrons, past and present, of the Hospital must have been an unprecedented event. A further singular occurrence was the fact that each of Southwark's only three Bishops was present, this being the only occasion on which these three prelates have attended a service in their Cathedral together. They were Bishop Talbot, who resigned his position as Bishop of Rochester to become the first Bishop of the new See; the Bishop of Oxford, Dr. H. M. Burge, who succeeded Dr. Talbot when he went to Winchester; and Dr. Garbett, who came from the diocese of Winchester to succeed Dr. Burge on his translation to Oxford.

On his arrival at the Cathedral, His Royal Highness was conducted by the Lord Bishop of Southwark to his seat on the dais, which had been erected before the choir, under the Cathedral tower. The choir and clergy then proceeded from the vestry to the chancel. The procession was led by the Crucifix, followed by the Choristers in their quaint frilled ruffles, the Lay Clerks, the Chaplains of other hospitals, the Past Chaplains of the Hospital, the Assistant Chaplain, the Acting Chaplain (the Rev. A. G. Harris), the Canon's Verger, the Lay Members of the Chapter, the Canons of Southwark, The Chaplain (the Rev. Canon J. B. Haldane), the Right Reverend Bishop Talbot (formerly a Governor and Chaplain of the Hospital), the Lord Bishop of Woolwich, the Lord Bishop of Oxford (a Governor of the Hospital and past Chaplain), the Dean's

Photo by the London News Agency.

NURSES ARRIVING FOR THE SERVICE.

Verger, the Lord Bishop of Southwark and the Bishop's Chaplain.

The service commenced with the singing of the hymn "As with gladness men of old," the entire congregation joining in heartily, and then followed the Collects of the Epiphany and of St. Luke, and prayers for "Our Founder and Benefactors," "Our Doctors and Nurses" and "Our Patients." Psalm xxiii. was then sung, after which the Lord Bishop of Southwark read the Lesson from Ecclesiasticus xxxviii., verses 1-10, 12-14, beginning with the words, "Honour the physician with the honour due unto him for the uses which ye may have of him: for the Lord hath created him."

After the Lesson, the choir gave a rendering of that beautiful anthem, "The Spirit of the Lord is upon me, because He hath anointed me to preach the Gospel to the poor" (Isaiah lxi. 1, 2, 3, 11), and the Lord Bishop of Oxford then gave his sermon, which we publish in full below. It was a most eloquent address and greatly appealed to the large congregation, and we wish that all those who will now read it, had had the privilege of hearing it.

The service concluded with the hymn, "Thine arm, O Lord, in days of old, was strong to heal and save," and the Blessing, pronounced by the Lord Bishop, was followed by the first verse of the National Anthem.

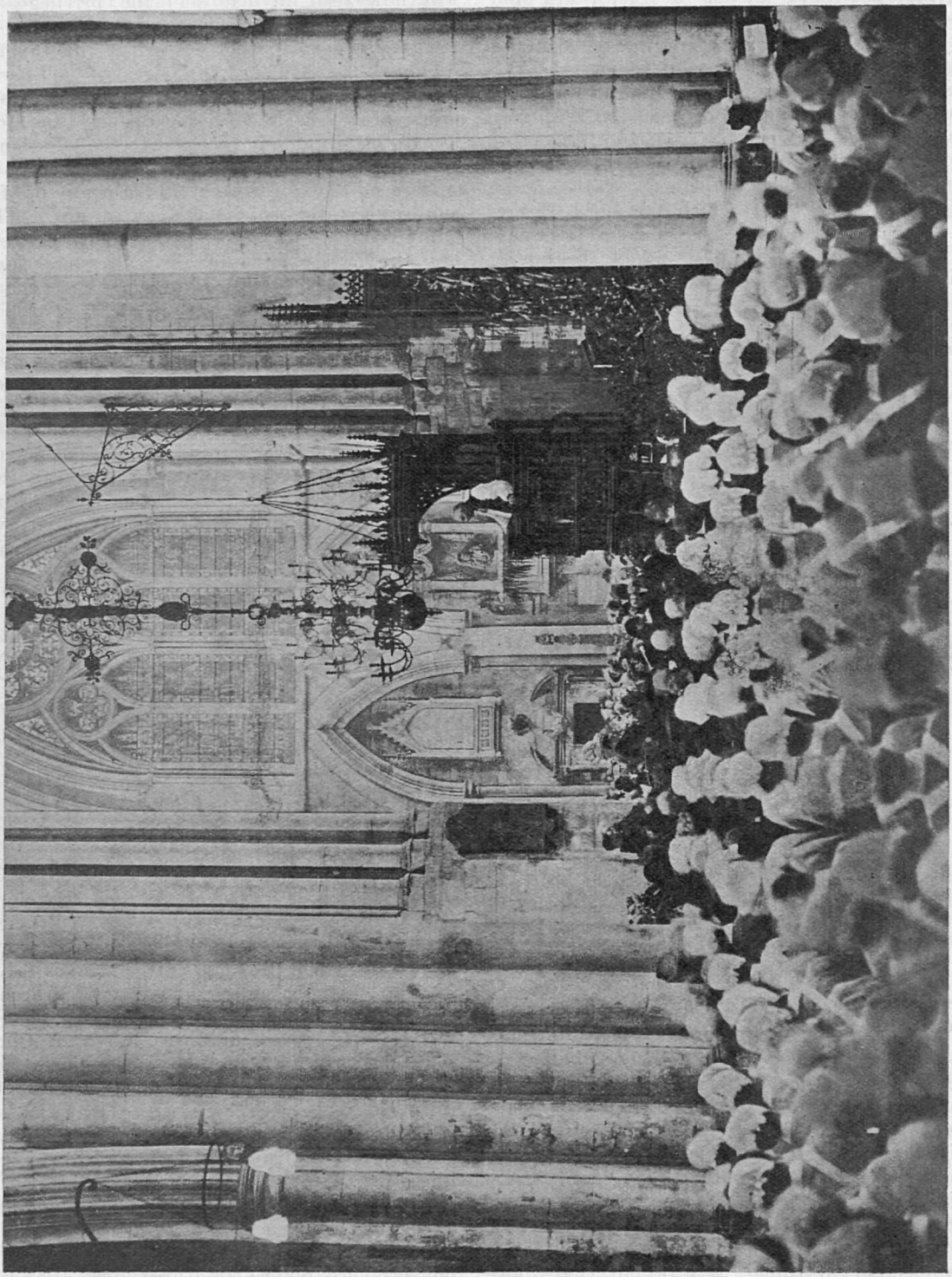
Had we the gift, we would conjure up for our readers the spirit of that service. The bald recital of its order, given above, conveys but the merest hint of the earnestness and sincerity with which the Guy's men and women took their part in this act of praise and thanksgiving. During the singing, every member of the congregation helped to swell the volume of those grand old hymn-tunes, while the silence, during the sermon, was so profound that the words of the preacher rolled through the nave with that tremendous solemnity that is only heard in vast and vaulted churches. The Cathedral formed a fitting setting for this glad but solemn ceremony; the congregation found itself in harmony with the setting.

Sermon by the Right Reverend Hubert Murray Burge, D.D., Lord Bishop of Oxford

(A Governor of the Hospital).

"*And the King shall answer and say unto them, Verily, I say unto you, Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me.*" and (45th verse) "*Inasmuch as ye did it not to one of the least of these, ye did it not to me.*" —St. Matthew, xxv., 40.

SO St. Matthew's Gospel closes the record of our Lord's teaching. That teaching is rounded off with a vision of judgment, but judgment, you will notice, not upon mankind, but upon those who call Christ their Lord and King. The religion of Christ claims of all who profess it that they shall prove their love of God by their love and service of mankind. It then declares that as we are brought within the reign of God's boundless love through Jesus Christ our Lord we shall be inspired to reveal to mankind God's love through our own love and service. In the light of Christ's Revelation, if a man love not his brother whom he hath seen, how can he love God whom he hath not seen? But then: Herein is love, not that we first loved God but that he first loved us. Brothers, God so loved us, we must needs love one another. Our fellowship with man is given its true meaning and its true motive through our fellowship with God in Christ. That is the distinctive mark of Christianity. If Christianity, Christian service, is distinct from philanthropy, it is distinct just because the Christian is bidden to recognise that the service of his fellow men is a duty which he owes primarily not to them but to Christ himself. We are to go beyond the motive of compassion, and human sympathy, and kindliness of heart, and brotherliness. We recognise in our fellow men, not merely brothers, but brothers for whom Christ died. And so we Christians are called to lift our bounden



THE DELIVERY OF THE SERMON.

Photo. by "Daily Telegraph."

duty and service to that high level where Christ can claim it and can consecrate our offering and use it for the highest ends of human welfare. It is indeed a high calling, and, because it is so high, therefore the failure to fulfil it is all the more humiliating. Listen to the inspiring condemnation: "Inasmuch as ye did it not to the least, to me ye did it not." "To me ye that bear my name proved disloyal." For us we are plainly told there is never any room for the plea that the needs and the interests of the least of mankind, the poor, and the sick, and the afflicted, and the destitute, and the prisoners, and the fallen, are no concern of ours, that we have not the time or the means or the opportunity or the special disposition which makes it possible for us to be engaged in, or even interested in, social well-being; that it ought to be the business of the State to make provision for the needs and the development of our hospitals by a compulsory tax. Christ claims the free and the willing service of these the least of his brethren from all who bear his name. Therefore, it is indeed fitting that we should gather here in this Cathedral Church, linked by ties new and old with the Hospital of Thomas Guy, to offer our tribute of praise and thanksgiving for the service which these two hundred years it has rendered to these the least of Christ's brethern, in Christ's name. And not least our thanksgiving for the spirit of simple Christian service which called out the bounty of Thomas Guy and enabled this work to be begun and to grow and to win such a signal place in our national life and condition. Single-minded Christian service indeed! One instance, conspicuous enough, but one instance amongst many in our history where English people can plainly show a plain Christian citizenship: Thomas Guy, the son of Thomas Guy, a lighterman who owned a wharf close by London Bridge. Thomas Guy, the son, apprentice in the booksellers' trade, by industry, by intelligence, takes the opportunities which good fortune brings to him; he prospers, and as he prospers he thinks not less but more of the opportunities of serving his fellow men which his prosperity brings him; witness the Almshouses which he himself built and endowed at the age of 35 in the Town of Tamworth. And then good fortune brings him good fortune, and in the course of a long life, by skill, by prudence, by enterprise, he amassed considerable wealth—again not for himself but to share with his fellow men. First he was devoted to the needs of the old Hospital that stood at the corner of St. Thomas's Street across the road, and then came the great project, dearest of all to his heart, to acquire the site and to build and to endow the Hospital where Guy's now stands. And so the old man passes away at the age of 80 years, on December 27th, 1724, and 10 days later, to-day, 200 years ago, Guy's Hospital was opened for 60 patients. The foundations of the work were well and truly laid. These 200 years tell the story of steady and ordered progress. In each generation new needs have arisen and new men have come forward and have been moved to meet them, thankfully to take their place side by side with Thomas Guy and to further his high purpose. Yes: and to-day the name of the humble apprentice in the booksellers' trade is linked with that noble line of the great men, great leaders of Medical Science from generation to generation,—Jurin, Saunders, Babington, Bright, Moxon, Fagge, Addison, Gull, Owen Rees, Golding-Bird, Sharp, Astley Cooper, Aston Key and Hinton, who in their turn lived to honour the Founder of the Hospital and have always from generation to generation recognised the debt which Medical Science has owed to the bounty of Thomas Guy. We cannot doubt that in future days the historian will dwell upon two of the distinguishing features of our own lifetime, first, the wondrous development of scientific knowledge applied to the treatment and the cure of disease, the alleviation of human suffering, to the saving of human life, to the skilful nursing of the sick and, not least of all, the provision for the progress of Medical Science and surgical skill by the careful training of young students in our great Medical Schools. All honour to them, to the men of our own generation, the men and women, the physicians, the surgeons, the nurses who have given to us so freely, and thanksgiving for the use that they have made of their God-given talents. Yes, and shall our tribute of thanksgiving for their service, for what they have given to us, be satisfied with the homage of our word? Shall their service be crippled, nay, stultified, because it shall be said that in our own generation large-heartedness, the thankful, generous spirit of Thomas Guy, is no longer to be found among us, is stifled in the fever and the fret of modern England? And then I turn to the other distinguishing feature of

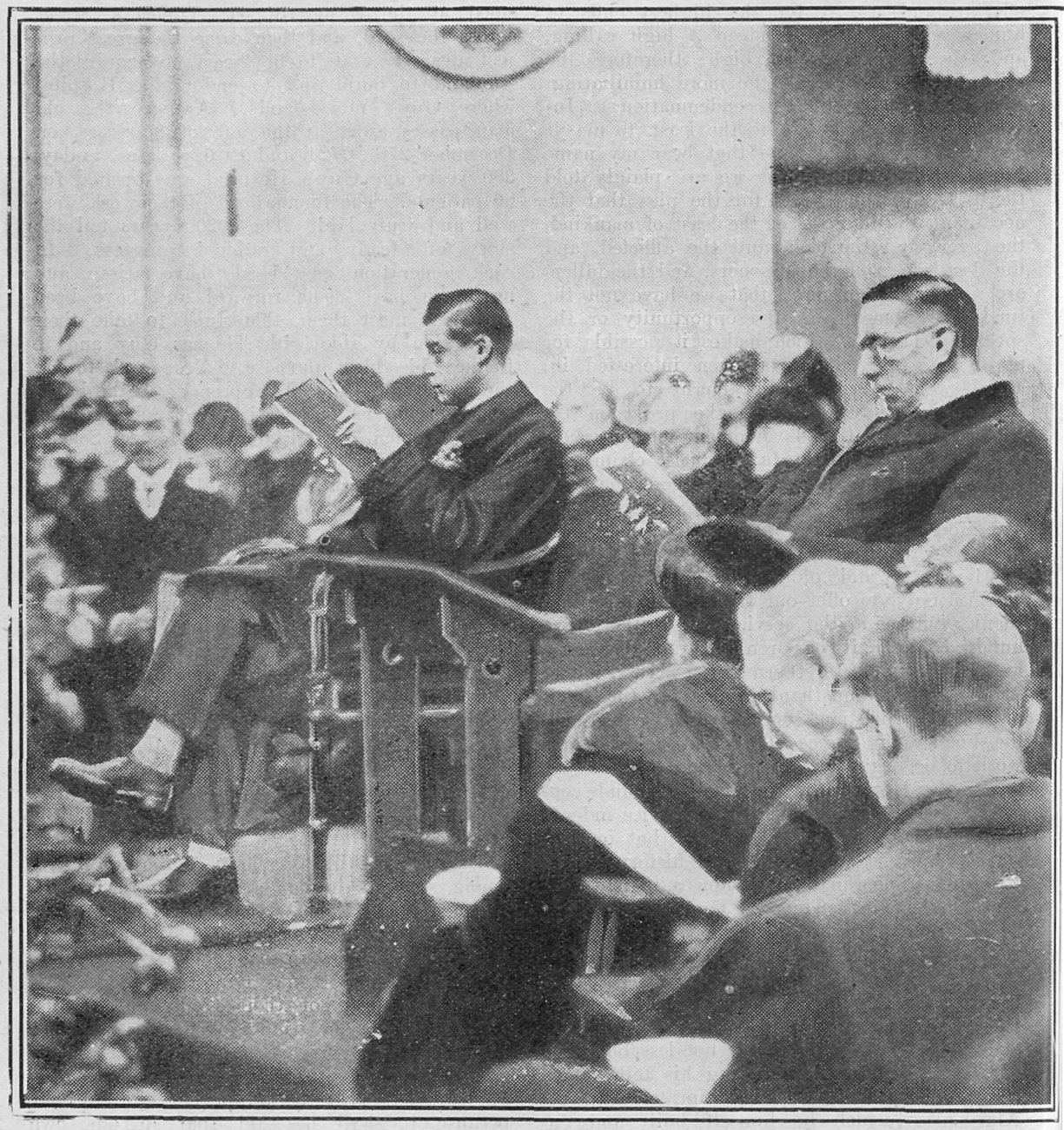


Photo. by "Daily Mirror."

THE PRESIDENT AND THE TREASURER FOLLOWING THE SERVICE.

our lifetime, the accumulation of great wealth, due no doubt to financial skill, to enterprise, to great ability and to sleepless industry, until fortunes, which in my own boyhood were unique, are now the mere commonplace of successful and prosperous careers. We shall take our place gladly and proudly in the line with our best tradition when it shall be said of us in our own generation that thankful, single-hearted men, instinct with the spirit of fellowship saw to it that their wealth was saved for the service of their fellow men, for the sore needs of these the least of Christ's brethren. My friends, it is easy enough to take Guy's Hospital as a matter of course, to discern that it stands for something in our common life which we could ill bear to be without. Stands for something? Stands for what? There, amidst the throngs and the thoroughfares of crowded, pitiless London, where the individual might easily be led to believe that he can count for nothing amongst these teeming multitudes, that everything matters, but nothing matters very much—there Guy's Hospital stands, as the generations come and go, from age to age to bear witness to those simplest, deepest truths which our Heavenly Father would have all his children learn and teach, that human life is a sacred thing, that the highest duty is always possible; self-sacrifice is sweet, the love and service of our fellow men is the Crown of Life.

THE SOUTH TRANSEPT. *Photo. by "Daily Mirror."*

Notice.

Daffodil Day.

IN connection with Dame Ellen Terry's birthday, a "Daffodil Day" is being organised in London for Saturday, February 28th, on behalf of the Ellen Terry Homes for Blind Defective Children. Offers of help should be addressed to "Dame Ellen Terry, 3, Upper Woburn Place, W.C.1."

Papers by Guy's Men.

E. G. Slesinger, F.R.C.S., Fractures of the Lower End of the Radius.—*Clinical Journal, liii.*, 1924. 629.

Publications Received.

The British Medical Journal, The Nursing Times, The Dental Record, The Dragon, The Royal Dental Hospital Magazine, The Northampton Gazette, The Journal of Organotherapy, Bratislavské Lekárske Listy, The Antiseptic, The Archives of Medical Hydrology, The St. Bartholomew's Hospital Journal, The Otago University Review, The St. Mary's Hospital Gazette, The Indian Medical Record, The Sphinx, The Prescriber, The Long Island Medical Journal, The London Hospital Gazette.

Tales of Long Ago.

II. Hoo Loo

An Operation of 1831.

(G.H.G., Feb. 8th, 1908.)

"From *The Standard*, of Monday, April 11th, 1831:—Operation upon Hoo Loo, The Chinese, for a tumour, in Guy's Hospital. (By an Eye-Witness).

IN consequence of Saturday last being the day appointed for removing the extraordinary abdominal tumour from the Chinese, Hoo Loo, and the particulars connected with his arrival in this country for that purpose having been publicly noticed by the daily press, Guy's Hospital, at an early hour in the morning, was absolutely beseiged by the most celebrated medical and scientific men in the neighbourhood of the Metropolis.

Amongst the crowd of medical, scientific, and non-medical individuals, who were present to witness the operation, we may enumerate the following:—Sir A. Cooper, Mr. Copeland Hutchinson, Mr. Titus Barry, Mr. Parke (brother of Mungo Parke), Dr. Stroud, Dr. Bright, Mr. Scott, Dr. Pidcock, Mr. Morgan, Mr. B. Cooper, Dr. Hodgkin, Mr. Calloway, Mr. Green, Mr. Travers, etc. At one o'clock, Sir A. Cooper entered the operating theatre and stated that in consequence of the smallness of its size and the large number who would thus be precluded witnessing the operation, it would take place in the large Anatomical Theatre, whither a rush was immediately made by those assembled; and, although this theatre will hold nearly 1,000 persons, it was crammed in every part within two minutes of the doors being opened. About half-past one, Hoo Loo was ushered into the theatre by the Sister and Nurses of the Ward "Luke," with that appearance of good humour on his countenance ("laughing, buoyant and spirited"), which he has been remarkable for manifesting ever since his introduction at Guy's. Indeed, he appeared to interest everyone present in his "future fate," and no one betrayed a greater feeling of anxiety (without a particle of nervousness or trepidation) to bring the operation to a successful issue than Mr. Key. This was an anxious moment to all parties. Every one appeared confident of a fortunate termination in consequence of the well-known skill and experience of Mr. Key, and the excellent spirits of the Chinese, which never forsook him until nature became exhausted, as the sequel will prove. It is, perhaps, necessary to observe, that Mr. Key was assisted throughout the operation by Sir A. Cooper, Mr. Calloway, Mr. B. Cooper, Dr. Addison, Mr. Morgan and other eminent individuals connected with the hospital.

The patient being laid on the table reclining on pillows, the operation was commenced by making two eliptical incisions from the outer margin of the peduncle of the tumour to the spinous process of the pubes on each side. The knife was then carried forward along the upper part of the tumour, so as to raise a flap of integument, which was turned back. A similar incision was then made on each side, and two flaps of integument detached. These incisions disclosed some very large subcutaneous veins, which afforded considerable hæmorrhage, and were obliged to be secured by ligatures before the operation could proceed. The neck of the tumour was next detached from above, and the spermatic cords laid bare. The mass of the tumour was finally dissected by a few strokes of the knife from the perinæum, and the lower flaps of the integument being turned back, it became entirely detached from the patient's body.

During the whole of the operation the patient appeared to be unusually affected by the loss of blood, which, in the whole of the operation, did not exceed 16 ounces, and entirely venous. The only arteries, besides those of the spermatic cords, requiring to be secured, were two small ones at the upper part of the swelling, from which not more than half an ounce of blood escaped. The patient continuing to be faint after the operation was completed, small quantities of brandy were administered, as it had been during its progress, and time was allowed him, before dressing the wound, to recover. In the meantime, many gentlemen who were present (among whom was Sir A. Cooper) left the theatre, in the expectation that he would speedily rally from his faintness. Fresh air was allowed to blow over him, and warm applications were applied to his feet and chest, but his fainting condition beginning, at

length, to excite apprehensions in the mind of the Surgeon, brandy was freely injected into the stomach, without producing any reaction of the heart, and it appearing evident, that without some further measures, the heart's action would altogether cease, transfusion of blood was had recourse to, and eight ounces (which were kindly furnished by a medical pupil, whose name we are unacquainted with) were thrown into the vein of the arm. All efforts, however, proved vain, and he sank.

The question naturally arises, what other steps could have been taken to have ensured success to the operation, and whether any other mode of proceeding would have been attended with less risk? The great danger apprehended by all the surgeons, who expressed their opinions on the subject, was from the hæmorrhage that might take place; and on the prevention of hæmorrhage the operator adopted every possible precaution by securing each vessel as it was divided, and waiting a considerable period at the successive stages of the operation to allow him to recover, and to have support administered to him. The operation thus became delayed beyond the usual period by the above precaution. Had the operator manifested impatience, of a wish to perform the operation speedily at any risk to the patient's life, he would have justly laid himself open to censure; but his aim was evidently to perform the operation with as much safety and caution as the case would admit. We may, therefore, attribute the death of the Chinese, after the operation was completed, to the shock inflicted upon his nervous system by the operation, and to the loss of a quantity of blood, which an ordinary healthy European would have borne without any dangerous effect.

Thus, we regret to state, terminated an operation, upon the issue of which the eyes of all medical men has been turned since the arrival of Hoo Loo in this country. Of one thing the public may rest assured, that no opportunity was omitted which skill and humanity could suggest, to preserve the life of the patient. The tumour weighed 56 lbs. avoidupois, besides three or four pounds of fluid lost during the operation. Its circumference, when detached from the body, was exactly four feet.

An extract from the *Dispatch* of April 17th, 1831:—

"Such has been the anxiety to possess some memento of Hoo Loo, that we have heard of one gentleman, who offered two guineas for the Chinese hat, which he used to wear, and of another, who would have freely given double that sum for the dead man's "queue," which, like similar appendages to the heads of all the Chinese, measured nearly three-quarters of a yard. The authorities at the Hospital, highly to the credit of the establishment, have suffered nothing to be disposed of, and Hoo Loo (who is to be interred in the burial ground of Guy's, on Tuesday next) will descend to his grave without the deprivation of the 'pride of the nation of China'—the tuft on his pericranium."

From the *Museum Catalogue*:—

Spec. 1620^{69}.—A portion of an immense tumour weighing fifty-six pounds, removed by Mr. Key, from the scrotum of Hoo Loo, a Chinaman, April 9th, 1831.

"He was 32 years of age, and the tumour had been growing ten years; it commenced in prepuce and continued to grow until the whole genital organs were involved, and the tumour measured four feet in circumference. It reached below the knees, but the man's health was good. He came purposely to England for removal of the tumour." [The surgeons in China would not undertake the risk owing to a Chinese maxim, which they never failed to put into practice, "The blood of life from him, by whom the blood of life is shed."—Ed.]

The tumour consisted of hypertrophied integuments and subcutaneous cellular tissue, constituting the form of disease known as elephantiasis scroti.

Other specimens: 1620^{76}, 1620^{86}, 1903^{94}, 2367^{70}, 2594^{75}, 419^{35}, 139^{11}."

Appointments.

A. Ernest Sawday, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Surgeon to the Derbyshire Hospital for Sick Children.

Mr. F. N. Doubleday, L.R.C.P.Lond., M.R.C.S., L.D.S.Eng., to be External Examiner in Dental Subjects to the University of Bristol.

Change of Address.

Thos. G. Stevens, 8, Upper Wimpole Street, W.1. 'Phone unaltered : Langham 1972.

Mr. H. H. Pickett, L.D.S., R.C.S., St. Michael's, Church Road, Ashford, Middlesex.

Dental Notes.

[For some time we have regretted that more articles of interest to Dental Surgeons and Students do not appear in the GAZETTE. We have now been in consultation with members of the Dental side of the Hospital, who have promised to supply, as regularly as possible, articles and information for inclusion under the heading of "Dental Notes." This week we are able to include the following article by an old Guy's man, and others, of interest to the Dental Profession, will be warmly welcomed.—ED.]

Dentistry and General Health.

By C. DOSWELL WALLIS, L.D.S., M.I.H.
(Guy's, 1900–'03).

ABSORBED as we all are in the technicalities of our professional duties, and dealing with the problems that daily present themselves for solution in our everyday practice, we may at times be inclined to overlook and neglect the wider responsibilities of our profession; and I propose to remind you of some of these larger aspects of our responsibilities and of the relation that Dentistry bears to health in general.

Our practice largely consists of *curing*, or at least attempting to cure or alleviate unhealthy conditions in the mouth, and the restoration of lost or diseased tissue by artificial substitutes. Dentistry represents an astonishingly successful branch of surgery, the results obtained often being but little short of perfection. Working, as we are, mainly upon hard, bony tissues, it is possible to completely remove all affected portions and to substitute such substances as will restore function to the normal, and I think one is safe in asserting that this is a better achievement than is possible in any other branch of surgery. For example, a scientifically filled tooth is a truly wonderful piece of work, and some of the performances in the field of orthodontics are astonishing.

However, whilst yielding to none in admiration of the marvels of practical dental surgery, I boldly maintain that this in fact forms but a fraction of the duties and responsibilities devolving upon the dentist to-day, and, indeed, should form the least part of his obligations.

Claiming, as we most rightly do, to belong to one of the learned professions, we must remember that this carries with it responsibilities and definite obligations.

The operative work carried out should be considered as but a part of a scheme of general mouth hygiene, which itself is, as it were, but a handmaiden to Medicine.

Dentistry has been described as one of the most important, if not *the* most important, outposts of preventive medicine.

Further, belonging to a profession carries with it the duty of teaching or making "profession" of one's beliefs and ideals.

This brings us to the consideration of two most important items in connection with modern dentistry, namely prevention and propaganda. That prevention is better in all ways than any attempt at cure is merely obvious.

It is notorious that the bulk of the population do not value their teeth, take no care of them, and have no ideas as to the need for maintaining sanitary conditions in the mouth.

This state of things is clearly due to ignorance, and it is one of our duties as professional men to assist in dispelling this dangerous lack of knowledge.

You will doubtless notice that in some of my remarks I refer to the condition found in the mouths of children, and to what can be done by expert dental attention to the very young. This is not because I happen to be engaged in looking after children's mouths, but because any efforts that have a chance of real success in the realm of prevention must be made at a very early age. Naturally, to prevent any condition from arising, it is necessary to anticipate the initial stages of such condition, and to combat the causes.

Now, investigation has shown that an appreciable number of children between the ages of two and three years have defects in their teeth, and that this percentage increases at a steady and alarming rate until, at about eight years of age, nearly every child examined shows some defects (I include in this statement dental caries, irregularities, and defects of all kinds.)

When conscription was brought into force in this country, according to the official reports on the condition of youths of eighteen—and this covered the entire population of that

age—it was found that nearly *half* had defects in their mouths and teeth *affecting the general health.*

These examinations were in every case carried out by Medical Officers and not by dentists, and the standard at that critical time being far from high, we may actually take it that this gives a *very favourable* view of the matter.

This report further states that the two commonest causes of disability were found to be defective teeth and bad feet. The latter are not so very serious a handicap in normal life as at present constituted, in view of the extraordinary modern facilities in the way of transport, but bad teeth and an unhealthy mouth affect every part of the system directly or indirectly, and are, therefore, of great importance. Such conditions need most serious attention or, better still, every effort should be put forth to *prevent* their occurrence at all. This condition of things, together with all the consequences that follow in its train, is little short of a scandal, and not only seriously affects the individual from the dental point of view, but has serious reflections in his general health and fitness, besides laying the foundations of many complaints and disabilities that only develop in later life.

The only possible *natural* mode of entry into the body is through the mouth and nose.

This entrance is guarded in several ways, by lymphatic tissue, lymphatic glands, the normal secretions of the mouth and nose, and by the normal bacterial flora present in a healthy mouth. If the activity and resistance of any of these safe-guards is lowered or destroyed, the body is largely open to disease infections. Septic, inflamed, unhealthy or uncleanly conditions in the mouth are the chief enemies of these natural safeguards, and such conditions should be corrected or held in check by careful, conscientious attention to mouth hygiene.

The other most common mode of entry of disease germs is due to traumatism, i.e., abrasions, cuts, wounds and the like. The commonest form of traumatism, and most important from this point of view, is damage to the protective surfaces of the teeth. When this is destroyed by caries, and more especially if the tooth pulp is exposed, a direct means of access is provided to the lymphatic and circulatory systems.

One example only will be of interest:—

It is a matter of common knowledge that seventy-five per cent. of the cases of tuberculosis occur in the lungs and the glands of the neck. The mode of entry of the germs causing these conditions is unquestionably through a dirty and diseased mouth and through the roots of decayed teeth.

We are told that it is never too late to mend, but it is even more surely certain that it is never too early to start in preventive dentistry Much is being done now in this direction at schools, infant welfare centres, factories, and by the friendly societies, and even the insurance companies, but much, very much, yet remains.

A few brief notes as to some of the effects produced by neglected mouth conditions in remote parts may be of interest.

Ill effects arise both directly and indirectly and are the result of oral sepsis and nerve irritation in the main.

A healthy state of mind and body depends largely upon efficient nutrition (though heredity, environment, etc., play their part). A diseased or dirty mouth, or one in which the full normal number of teeth is deficient, affects nutrition adversely in several ways. If teeth are painful or irregularly placed or missing, mastication is interfered with and the food cannot be properly chewed and mixed with the saliva, and so much of its nutritive value is lost. Besides, much less food than is requisite is eaten, and this little bolted, leading to gastric trouble and malnutrition. Further, the constant swallowing of septic material sets up indigestion, which again reacts upon the appetite. This, together with absorption of septic products, leads to many remote diseased conditions, such as rheumatism, nose and throat disease, bad eyes, ears, and countless other maladies. The resistance to infection is also greatly lowered and the natural recuperative power of the individual much reduced. Probably half the diseases of childhood might be avoided by attention to painful teeth or gums, which set up a very considerable amount of nerve irritation, the reflex action of which has disastrous effects upon the physical, mental, and moral character. Even discomfort in the mouth, not amounting to actual pain, caused either by sepsis, dental caries, or overcrowding of the teeth, will have a very marked ill-effect. The bodily health suffers, the mental faculties are dulled and the moral sense warped.

It has been most clearly demonstrated that defects in the mouth lead to quite surprising

mental and moral disabilities in addition to numberless physical complaints and general disorders.

The correctness of these assertions is shown, not only by the fact that mental defectives and moral delinquents invariably show a very high percentage of defects in their teeth and mouths, but also by the fact that a large proportion of these cases (apart from idiots and the insane) can be cured, or the symptoms greatly alleviated, by appropriate treatment of the mouth conditions, subsequent attention to the toilet of the mouth, and the carrying out of correct methods of mastication.

Some of the more outstanding conditions that have been observed are:—

> Loss of sleep, night terrors, delusions, restlessness, nervousness, headaches, sleep walking, uncertain temper, mischievousness, excitability, boisterousness, sauciness, quarrelsomeness, incorrigibility, disobedience, obstinacy, incoherence, stubbornness, dulness, stupidity, lack of ambition, inattention, carelessness, slovenliness, retardation in study, general lack of control in minor matters, general instability, and degeneracy.

Quite a formidable list you will say.

In children, all this means that they fail to progress in their studies as quickly as they should and might, and at the same time hold back their fellow scholars, thereby greatly increasing the work of their teachers and adding appreciably to the cost of their training.

From a careful analysis of facts and figures collected in these connections, the following conclusions emerge:—

In more than fifty per cent. of cases of juvenile delinquents examined, *seriously defective teeth* were found, as against less than forty in normal children of the same age.

With regard to laggards at school, it is estimated that about *half* the failures to gain promotion are due to mouth defects. Malnutrition is noted in about fifty per cent. of those whose teeth are defective, as against only ten per cent. in children with good mouths. It is also well known and quite firmly established that an enormous proportion of the insane and habitual criminals have exceptionally bad teeth, not only decayed and septic, but also irregularly placed and overcrowded.

How many and how great evils and misfortunes could be avoided or at any rate, greatly mitigated by careful attention to the dictates of preventive dentistry, instruction in mastication, food requirements, and the importance of mouth hygiene. Such attention and instruction represent time, trouble, and money well spent, and repay a hundredfold the care and trouble taken.

The Editor will welcome further contributions from old Guy's men upon this, or any other subject, which particularly interests them.

Correspondence.

The Medical Family Tradition.

DEAR SIR,—I wonder if this short note on family history is of any interest to your readers.

I am descended from a Jew of the tribe of Levi, called Aschaffernberg, who in 1506 lived at a house with the sign of the Red Lion, in Frankfort. In 1509 at the instance of the nobles he was appointed town-physician, and eventually ennobled to the extent of becoming "von Aschaffernberg."

The succeeding generation lived in a house with the sign of a sickle—hence the name "Sichel" to the present day.

It is interesting to note that Eucharius Rösslin, author of "Rosengarten," the first printed work written specially for midwives was probably Aschaffernberg's immediate predecessor, being elected physician to the City of Frankfort in 1506 at a yearly stipend of 60 florins.

Towards the end of the eighteenth century the Austrian Baron von Dittensdorf wrote a play called "The Doctor and Apothecary," wherein the doctor is called Sichel. The play was translated into English and produced by Sheridan and Cox at Drury Lane in 1798. In the translation the Dr. Sichel has become a Dr. Bilioso (I have a copy of the translation).

I think one may fairly assume that the assumption of the name "Dr. Sichel" in the original play is because the name was fairly common in the profession at the time.

Dr. Jules Sichel, the French oculist (my great uncle), was born in Frankfort in 1802

and died in Paris, November 14th, 1868. He designed a cataract knife well known when I was a student, and doctored the poet Heiné for his eyes, and was summoned from Paris to St. Petersburg to operate on the Empress Catharine. For this latter he is said to have received £4,000 and a decoration—very likely the fee is much exaggerated.

I was a student at Guy's 1886—93, and my cousin Alan Sichel, who qualified at Edinburgh in 1912, and played Rugger for the University, is now practising as an oculist in Cape Town.

This means over 400 years of association of one family with medicine. Is this a record?—Yours, etc.,

GERALD SICHEL.

Sevenoaks,
30th December, 1924.

Mrs. Poland.

DEAR SIR,—I am pleased to say that in response to the appeal recently published in the GAZETTE, I was able to forward to Mrs. Poland a cheque for £22 15s.

I enclose a copy of her letter to me, which she sent in acknowledgement.

May I here thank most sincerely all of those men who so generously responded to the appeal.—Yours truly,

J. STUART SMITH.

Dental Department,
Guy's Hospital,
London, S.E.1.
Jan. 1st, 1925.

Dear Mr. Stuart Smith,

I send you my earnest thanks for your very kind letter and for the cheque from the past and present Students of Guy's Dental School.

It came as a most delightful surprise by the last post on Christmas Eve—an ideal time for such a gift.

I cannot thank you all enough for the kind thought prompting the sending of this most acceptable present, and I prize too all you so kindly said in your letter.

My recollections of the 27 years I spent at Guy's Dental School will always be most happy ones.—With warmest thanks, I am, yours sincerely,

E. S. POLAND.

42, Overton Road,
London, S.W.9.
December 28th, 1924.

Football.

DEAR SIR,—Now that the first half of the Rugger season is over it is interesting to compare figures. Our position at the moment is better than that at the same period last season. We have to date beaten all the leading Clubs in London, these including Blackheath, Richmond, Harlequins and London Scottish. Our best performance was beating Gloucester on their own ground, the first time we have accomplished this.

It will be noticed that we have scored the same figure "for" as last season, but the defence is considerably weaker. One would have thought that B. G. Scholefield on his play this season would have been "officially" recognised; this should come.

The following are the figures for Guy's up to the end of 1924, with the figures for the same period in 1923.

1924—25: Played 15, won 7, lost 6, drawn 2, points for 134, against 120, percentage 53.3.

1923—24: Played 15, won 5, lost 7, drawn 3, points for 134, against 79, percentage 43.4.

Of the London Clubs the Old Blues lead to date, followed by the other leading London Clubs in the following order (the figures in brackets indicate the number of games played):

Old Blues (14), 78·57 per cent.
Richmond (14) 57·0 per cent.
O.M.T. (14) 57·0 per cent.
London Scottish (16) 56·2 per cent.
Guy's (15) 53·3 per cent.
Blackheath (21)45·24 per cent.
Harlequins (14) 28·57 per cent.

Trusting these figures will be of interest to Guy's people, I am, yours truly,

ROY C. HOLLOWAY.

"Thyrlstane,"
The Highway, Peacehaven, Sussex,
31st December, 1924.

Guy's Hospital Dental School.

Second B.D S. Exami ation.

The following students passed the 2nd B.D.S. Examination, held in December, 1924 :—C. Hall, F. S. Krusin, and C. G. Walmsley.

Some Remarks on a Case of Impermeable Stricture of the Urethra.

By H. L. ATTWATER, M.Chir.Cantab., F.R.C.S.Eng., Assistant Surgeon
All Saints' Hospital for Genito-Urinary Diseases.

J F., aged 55, has suffered from stricture of the urethra since 1913 and underwent more or less intermittent treatment for the disease for eight years, 1913 to 1921, after which he gave up attending hospital. In the latter part of April, 1924, he found that he was having great trouble in passing his urine, and attended my out-patients. With much difficulty a filiform bougie was passed and intermittent dilatations were commenced, the size of the bougie being gradually increased up to 10 Charriére (4 English). During this period the urine was very foul and the general health of the patient was not good.

In the fourth week of May he developed an acute cystitis and his symptoms rapidly became alarming. He complained of severe headache, his breath had a urinous odour, his features were puffed and bloated, his mental state was clouded, his bladder became very distended, and such urine as he passed was excessively foul.

Operation (May 25th, 1924).—Suprapubic cystotomy was carried out as rapidly as possible. I did not think it advisable to do anything further owing to the grave condition of the patient, and my desire to subject him to the shortest possible anæsthetic and the least amount of disturbance.

For many days after this operation the patient was in such a state that one could not attempt to dilate the urethra. His condition was one of profound toxæmia with enormous intestinal distension which refused to yield to purgatives or enemata. He was given large quantities of fluids and alkalis and gradually got better, the meteorism subsiding slowly, notably after an injection of a small quantity of adrenalin hydrochloride into the spinal canal.

On June 11th an attempt to pass a filiform bougie through the urethra failed and subsequent attempts were equally unsuccessful. Meantime the general health of the patient rapidly improved, but, owing to the very grave condition in which he had been at the time when the bladder was opened, it was decided not to subject him to another anæsthetic for a considerable time.

Second Operation (August 6th, 1924). *Preliminaries.*—At this time the health of the patient was excellent. He was eating and sleeping well and had increased in weight. In fact, except for the suprapubic fistula, he appeared to be in sound health.

A few days before the operation urethroscopy showed a healthy urethral mucosa, the passage ending blindly at the bulbo-membranous junction. The canal was blocked by a wall of healthy scar tissue in which were two tiny pits suggesting a possible continuation of the canal to the posterior urethra beyond. However, attempts to catheterise these pits with filiform bougies through the urethroscope failed, the bougies being arrested almost as soon as their tips had engaged in the mouths of the openings. A cystoscope was then passed into the bladder through the fistula and an attempt made to pass a filiform bougie along the posterior urethra and so through the stricture. This also failed, the instrument being stopped at a point about two and a half inches from the internal meatus. An X-ray examination with the bladder and urethra filled with a solution of sodium iodide showed a gap in the urethra of about a quarter of an inch. I, therefore, concluded that I was dealing with a true impermeable stricture situated at the bulbo-membranous junction.

Operation.—On the day mentioned he was anæsthetised and the urethra was opened on a "Wheelhouse Staff." I found that the urethroscopic findings were correct in every detail. The urethra was healthy, but impermeable. The two little pits were shallow, blind

cul-de-sacs and probably marked the sites of an old false passage and of the remains of the true urethra.

A curved sound was now passed into the suprapubic fistula and along the posterior urethra until the point could be felt through the tissues in the depths of the perineal wound, just behind the scar which closed the canal. A small incision was then made through the scar until the tip of the sound was free and could be protruded out through the wound. I did not think it advisable to attempt to excise the stricture owing to its deep situation and the probability of failure, in what is all important in these cases, the gaining of apposition of the urethral mucosa without tension. The tip of a probe-pointed director was then placed against the point of the sound and, as the latter was cautiously withdrawn, the director was made to follow it into the bladder. The rest of the operation was concluded on normal lines. The stricture was divided, a gorget slid along the director, and a No. 16 English gum-elastic catheter passed through the external meatus along the gorget into the bladder and tied there. The perineal wound was lightly packed and the patient was returned to bed.

Progress and After-Treatment.—He made an excellent recovery and both fistulæ closed rapidly. The No. 16 Catheter was retained for ten days and then changed without difficulty. The suprapubic fistula was the first to close, being healed in a little more than three weeks from the date of operation. The perineal wound, except for a very small leakage, was closed at about the same time. The failure of the perineal wound to heal completely was thought to be due to the irritation caused by the catheter, so that it was removed and a bougie passed every few days. This effected the desired result and both wounds were soundly healed and micturition was normal by September 9th, 1924.

After discharge from hospital the urethra was dilated regularly in the Out-Patient Department once a week, at first with bougies and subsequently with the curved Kollmann Dilator. On October 30th the size of the urethra was 42 Charriére (26 English), reached without any difficulty, and a urethroscopy carried out a week later showed that the whole of the urethra is lined with healthy mucosa with extraordinarily little evidence of scar tissue at the site of the original stricture.

Remarks.

The first point to be noted is the necessity of prompt drainage of the bladder in all cases of urethral obstruction when signs of renal failure and toxæmia appear. In this connection I believe that the suprapubic method is far superior to the perineal. The management of such cases is very easy, and the method paves the way to any future operation which may be necessary. This principle of diverting the urine is one which might be much more widely used in urethral surgery.

In this case the urethra, being placed in a state of absolute rest rapidly regained its normal health condition and the subsequent operation could be conducted in a field that was surgically clean.

The second point is the advisability in cases of stricture, when the bladder has been opened, of passing an instrument through the stenosis within a few days of the opening of the bladder. Otherwise the worse the stricture and the more inflamed and ulcerated the mucous membrane in its neighbourhood the more liable are the surfaces to come together and adhere, giving rise, as in this case, to an impermeable stricture.

The advantages of the suprapubic cystotomy were again proved after the second operation when, owing to the urine escaping through the fistula, there was no tendency for it to trickle alongside the catheter as generally happens in cases of continuous catheterisation. Urine between the catheter and the urethral wall is a very important adverse factor, because it does not escape readily and, therefore, ferments and rapidly sets up a urethritis which may spoil the final result of any operation on the urethra. In this case there was no sign of any urethral irritation due to the catheter till towards the end of the second week, by which time the site of the stricture was sufficiently healed to allow the continuous dilatation to be discontinued and the intermittent passage of bougies to be commenced.

Further, the drainage of the bladder put an end to the cystitis, and the urine became clean so that when it was allowed to flow over the healing urethra it did not contaminate the surfaces with active organisms. Moreover, had it been possible to excise the stricture the operation could have been carried out in a surgically clean field with every prospect of obtaining primary union of the divided urethral mucosa and a good final result.

Sport.

Rugby.

Guy's v. United Services.

THIS return match was played at Portsmouth on Saturday, December 20th. There were several players on both sides unable to turn out. But notwithstanding the absence from the home side of such stalwarts as Lieut. Faithful, Lieut. Loriston Clarke and Lieut. Orr-Ewing, the Services still commanded a pack that was rather better than ours. We had B. G. Scholefield, N. M. Holloway and G. G. Cameron away. In their places were D. C. M. Ettles, J. Popperwell and G. King-Turner. The game was undoubtedly won for the home side by their forwards. They played a fine game and at times their passing was much more effective than anything in the shape of handling attempted by their backs. We had many narrow escapes during the first half and none more narrow than when Stephenson, the Irish International player went into touch on facing Leslie. He had only to pass Leslie and then run straight in. Twice penalty kicks taken by Forrest just missed their objective. The first half was pointless, and if we hadn't done much in the way of attack, the side can at least be congratulated on a very sterling defence, in which Spence, Hops, Graham-Davies and Fellowes-Smith played strong parts.

The second half was for a time also pointless. We occasionally got going, but the Services could defend as strongly as ourselves. We were fortunate that Buchanan was off his game and thus the Service three's had few opportunities. Their first try came from Wood, playing on the opposite wing to Stephenson. Their second score was gained by Cumberbatch, and it was a lucky one. A Guy's defender had ample time to touch down, but hesitated, and before he could run out with the ball Cumberbatch dashed up and a try resulted. It is difficult to tell exactly how we failed to secure a win. There was little real attack and what there was apparently lacked purpose.

As the Dulwich match on Boxing Day had to be scratched, this completes the first half of the season. After this, in real earnest we must prepare for the Cup Ties and each man likely to be called on must keep himself in tip top condition for the great struggle that lies before us.

United Services 2 tries (6 points), Guy's Nil.

Guy's Team.—P. B. D. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, H. W. Leslie; W. Hops, V. R. Preen; J. Durr, J. W. Schabort, W. H. Myburgh, E. E. Neser, E. W. Hutchinson, G. King-Turner, J. Popperwell, D. Ettles.

Guy's v. R.A.F.

ON Wednesday, January 7th, our ground at Honor Oak Park was trying to make a double recovery. It was drying from the abnormal rains, then on Wednesday came a frost followed by a partial thaw. This partial thaw did it, and before very long the field of play was very bad. The ball was heavy, the going most treacherous, and our men—shall one say it?—were "Christmassy." Short of training is a better expression, and too long without football, yet they started off well and, while the forwards lasted, repeated attacks were set up on the left. But the defence was good, and though Leslie, helped by Steyn, tried several times, the attack was not quick enough. Steyn was in the centre, and all were pleased to see him again, but not in the centre. He must be nursed and his speed is always his and our greatest asset. At length Van Schalkwijk shot away past their centres, giving a fine pass to Steyn, who ran behind the posts. Van Schalkwijk converted. Now the Air Force came more strongly and we were sorely pressed. Spence was in good form and he kept his line intact. Just before half-time a penalty kick brought three points to the Airmen, the ball hitting the upright and falling on the scoring side.

J. Durr was excellent all though the game, but the heavy going told heavily on the others. Chick for the Airmen was an outstanding player, his dribbling being very effective. They also handled better, and as their forwards improved their backs got several chances. Wale on the left, a Coventry player, distinguished himself by dropping a good goal. Steyn now had gone to the wing and Fellowes-Smith went centre. Here he played a

very strong game, tackling manfully, but Scott got away and with the ball at his feet, dribbled a long distance to score well. Wale, with a good kick, goaled. Nothing daunted, our men came again. Popperwell and Neser were prominent and Fellowes-Smith, running strongly, sent Preen in with a try right behind. Van Schalkwijk's kick hit the post and fell the wrong side. Again Guy's pressed, and a good passing movement looked hopeful when Wale intercepted and ran right away. Spence made a gallant attempt to reach him and Wale was checked, but he placed the ball behind the post to goal himself.

The final score was :—R. A. F., 2 goals, 1 dropped goal and 1 penalty goal, 17 points, to Guy's 1 goal 1 try, 8 points.

Examinations and injuries kept Graham-Davies, Schabort, Scholefield and Cameron away. When we get fit we can do much better than this. Hops did not like the heavy going, and J. C. Russell, his opponent, who also plays for Leicester, out-played him. Preen suffered consequently, and a dry ball and ground is much more suitable to his play. Spence, Fellowes-Smith, Durr and Holloway one must commend, and no word can be said against the defence of the forwards; they went down in the mud well and pluckily, but they lacked "fire and devil." Hops is also full of grit and he never saves himself when it is necessary to fall on the ball or defend.

P. B. D. Spence; G. Fellowes-Smith, J. G. Van Schalkwijk, C. L. Steyn, H. W. Leslie; W. Hops, V. R. Preen; J. Durr, E. E. Neser, N. M. Holloway, W. H. Myburgh, E. W. Hutchinson, De Wet Vorster, J. W. Popperwell, J. D. Visser.

Guy's v. Bristol.

IT was difficult to recognise in the Guy's team on Saturday, January 10th the same players that did duty for the Hospital on the previous Wednesday. The forwards were in tip-top form and showed plenty of life and vim. The ground was still very soft, but they stuck to their game admirably. In the first few minutes of the game Fellowes-Smith cross-kicked; Van Schalkwijk scored an unconverted try, and this was the only score of the game.

L. J. Corbett, the famous International, played for Bristol, but he was too well watched to be often dangerous. However, in defence he played excellently, his kicking being very fine. Tucker, their International forward, was not available. The state of the ground did not favour play by the backs, but for all that there were several good rounds of passing, and once in particular only a forward pass saved us. Spence one has often to commend, yet on this day he surely excelled himself, fielding the heavy ball well and always playing confidently.

But it was an afternoon for the forwards, and both packs let themselves go with a vengeance. The Bristol men were unlucky to get Portman hurt. He broke a rib in the early part of the game. There was very little incident of special note and a low scoring game is always difficult to write about. There was very little wrong about the game and very little to criticise. Perhaps it would have been better to run more and kick less, but on the heavy grounds of to-day it is, perhaps, wiser to secure position before delivering an attack.

We had still to take the field without Scholefield, Schabort and Cameron, but their substitutes covered themselves with glory, and it is good to know that Guy's has such good reserves, able to take their places, and in due course probably become regular members of the 1st XV.

Score—Guy's 1 try, 3 points; Bristol, nil.

P. B. D. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, H. W. Leslie; W. Hops, V. R. Preen; J. Durr, E. E. Neser, N. M. Holloway, W. H. Myburgh, E. W. Hutchinson, De Wet Vorster, J. W. Popperwell, J. D. Visser.

Guy's Hospital Musical Society.

IN aid of the Bicentenary Appeal, this Society will give several performances of "Iolanthe" in May next, The production will be upon a scale hitherto unattempted by the Society. The rehearsals are to be under the supervision and direction of a professional producer, and a theatre is to be engaged for the performances. Needless to say, the venture will have to be supported keenly and actively by all members of the Society and of the Hospital, if the desired end is to be attained. No doubt is entertained that it will be, but the present need is for more singers. Anyone who is interested in amateur operatic work, and who possesses be it only the most modest of voices, is earnestly invited to blend it with those of the existing members. The subscription is only 2s. 6d., and it affords you the opportunity to appear behind the footlights of a London stage, besides many hours of pleasure. Information re rehearsals will be found on the notice-board in the Colannade. Note that the first of these will be on Monday, January 19th.

Reviews.

Physiology.

A Text Book of Physiology. By H. E. ROAF, M.D., Professor of Physiology at the London Hospital. Pp. 605. Published by Messrs. Edward Arnold & Co., London. 1924. *Price* 25*s. net.*

THE main interest of this book is that the subject matter is arranged in rather an unusual way, as there are three main sections, Mechanical Aspects, Chemical Aspects, and Regulative Aspects. Naturally most facts about muscles and the skeleton fall in the first, digestion and metabolism mainly in the second, and the nervous system in the third

But with some of the other systems, the arrangement is not very satisfactory, for the circulatory and respiratory systems are dealt with in all three parts. This will lead to difficulty for the student in understanding at first and later in making references. It would certainly be better to take these chapters from their present position and put them together. The facts about the kidney and about urinary secretion are particularly hard to find owing to this arrangement, and the various functions of the ductless glands can be studied better in connection with metabolism. There are some good illustrations in this section but it is hardly full enough.

Inevitably most of the illustrations and tables must be old ones, but the book has been well brought up to date and contains accounts of insulin and of the regulation of the H-ion concentration of the blood, with a useful table of the point at which various indicators change.

A welcome feature is the introduction of a chapter on Experimental Psychology which should certainly be included as a branch of Physiology. It is useful including a few books which may be read to amplify certain chapters, but the list of these should be very much increased. If heredity, reproduction, birth, growth and death are to be dealt with as they certainly should, thirty-five pages is hardly enough space, but it is more than they have received in some text-books.

Probably, however, the book will stand or fall on its new form of arrangement, and it seems doubtful to the reviewer if it will be any improvement. The student should be taught to think of the body as a whole and how each organ or system serves this purpose. The present arrangement does not appear very helpful for this.

Gynæcology and Obstetrics.

Gynæcology and Obstetrics: A Text-Book for Students and Practitioners. By JOHN S. FAIRBAIRN, M.A., B.M., B.Ch. Oxon., F.R.C.P. Lond., F.R.C.S. Eng. Pp. xxii + 769. Published by Messrs. Humphrey Milford, Oxford University Press, London. *Price* 25*s net.*

THE Author, who has been for twenty-five years a teacher of gynæcology and obstetrics, and for nearly twenty years an examiner in the same subjects, states that the two objects, with which he has written his book, are first to enable the student to make himself an efficient member of the health service of the community and secondly to help him to outflank and outwit his examiners. Both of these worthy objects are likely to be achieved, as long as the views held by the examiners agree with those expressed in Mr. Fairbairn's book. As a rule this will be the case, but there will be times when a repetition of some of the forms of treatment given will meet with disapproval. For example, myomectomy for sub-mucous fibroids causing serious hæmorrhage is not universally adopted as the routine method of treatment.

The first great advantage of this volume is the inclusion of both subjects, instead of having one book for midwifery and another for gynæcology. Another is the addition of a special part devoted to "Public Health, Social and Ethical Aspects." This part includes an account of the health services for maternity and child welfare, vital statistics, sections on the social aspects of venereal disease, on occupational disability, eugenics and racial welfare, and medico-legal questions and a short, but practical account of birth control and contraceptives.

This is but one of eight parts, the other seven being devoted to Anatomy and Physiology, Pregnancy, Labour, the Lying-in Period, The New-Born Infant, The Diseases of the Reproductive Tract, and Operative and other Therapeutic Procedures. The physiology of all the normal functions of pregnancy and labour are carefully explained and the whole book seems to be saying over and over again: "Don't you see; the thing is so simple if you only approach it in the right way." The text is never dull and at times becomes almost racy and the Author has made a special point of saying whenever he includes matter only because it is still asked at examinations.

The book is warmly recommended as a good practical treatise for students and practitioners.

A Short Practice of Midwifery. By HENRY JELLETT, B.A., M.D. (Dublin University), F.R.C.P.I. 9th Edition, revised. Published by Messrs. J. & A. Churchill, London. *Price* 18*s. net.*

THIS well-known book has been thoroughly revised and now embodies the present-day treatment, as taught at the Rotunda Hospital, Dublin. The book is well illustrated by 262 photographs and diagrams and the print is large and clear. As to the text itself, the book is well-known as a sound text-book of Midwifery Practice and can be thoroughly recommended. The chapter on that confusing subject, the toxæmias of pregnancy, is particularly good. An Appendix contains a summary of the statistics of the Rotunda Hospital for the past thirty-three years, and covers more than 57,000 consecutive cases of labour.

Dentistry.

The Dental Surgeons' Directory, 1925. Published by Messrs. J. & A. Churchill, London. *Price* 8*s.* 6*d.*

THE separate publication of the Dental Section of the Medical Directory greatly facilitates reference. The last 40 pages are devoted to Local

Lists of Practitioners in the British Isles and abroad, and to reviews of Dental Schools. Particularly useful are the particulars of the various Dental Outfitters. The book is calculated to make reference easy, and in this the publishers have ably succeeded, though the titles in some of the advertisements are slightly mixed.

The Mathematics of Dental Prosthetics. By F. W. RAPP. Published by Messrs. John Bale, Sons, and Danielsson, Ltd., London. *Price 5s.*

ANOTHER contribution to the much vexed question of the Anatomical Articulator. The Author sets forth what he believes to be the remedy for the anatomical "set-up," which does not work in the mouth in a very clear and progressive manner.

It is very difficult to see how the setting of the models with "mathematical" accuracy is going to help, when all the implements suggested are based upon averages, i.e., not "mathematically" correct for the case in question.

The perfect symmetry ensured by the "plane curve testing blocks" is hardly in accordance with that modern concept—the "neutral zone!"

Surgery.

Pye's Surgical Handicraft. Edited and largely re-written by W. H. CLAYTON-GREEN, C.B.E., B.A., M.B., B.C.(Camb.) F.R.C.S.(Eng.). 9th Edition, pp. xvi. + 619. Publishers, Messrs. John Wright & Sons, Ltd., Bristol. Price 21*s. net.*

THIS work, the first edition of which was published in 1884, has always been offered as a "manual of surgical manipulations, minor surgery and other matters connected with the work of House-Surgeons and Surgical Dressers." It has not in any sense been intended for an elementary work on theoretical surgery. It is a practical book, telling the reader how to do things, and as such is of great value as a book of reference. It is not an exhaustive treatise on any one subject, but describes methods which have been found satisfactory by the Editor and his Assistant Authors, instead of giving a list of methods used by others. For instance, in the section on "Blood-transfusions," no mention is made of immuno-transfusions or of the method of defibrination, but the method described at length is eminently practical and the length of the volume had evidently had to be considered. There is a chapter on the general treatment of syphilis and gonorrhœa, including an explanation of the technique and theory of the Wassermann Reaction, and others on various surgical operations, cases of poisoning, common diseases and injuries to the eye, nose, throat, larynx and ear; the administration of anæsthetics, fractures, wounds, X-rays, after-treatment and urine-testing. Altogether it is a good, practical book, which can be recommended with confidence as one of great value to Surgical Dressers and House-Surgeons.

Medicine.

Rheumatic Heart Disease. By CAREY F. COOMBS, M.D., F.R.C.P. Publishers, Messrs. John Wright & Sons, Ltd., Bristol. Price 12*s.* 6*d.*

THE Author is to be congratulated on attempting to fill a great gap in medical literature by writing this monograph, which he has approached by recording his own views and investigations of the disease as an entity rather than turning up in new form a review of other writers. Dr. Coombs, considering the ætiology, lays stress on the cause of Rheumatic Heart Disease being microbial in origin —probably a Strepto-diplococcus—and this has led him to leave the relation of malignant endocarditis to simple endocarditis a very open question. He emphasises the fact that secondary factors are of extreme importance, and that no possible method of investigation should be left undone to attempt to produce a further insight into the causation of the disease.

Two chapters are given up to the consideration of the morbid anatomy and physiology of the disease, and show that the author has carried out much original work. Dr. Coombs, among others, takes up the attitude that the Aschoff nodules are typical of rheumatic disease regardless that others are not in agreement on this question. He demonstrates clearly how the A-U bundle frequently escapes in rheumatic heart disease.

Symptoms and signs are carefully set out, and the ease with which a primary cardiac rheumatism, particularly in children, may be overlooked, is stressed. Dyspnœa is classified into three groups, and he points out that the commonest cause in the young of "heart failure" is a new or lighting up of an old infection. The difficulty of recognising this active infection on top of an old and healed lesion, with its resultant effects on the heart, is clearly demonstrated. Disturbances of rhythm and the "pain" element in rheumatic heart lesions is met with due attention.

The chapters on diagnosis, course and prognosis are well written. Interesting statistics are produced by Dr. Coombs having been able to follow up a large number of previous cases, and from these figures conclusions have been drawn as to the prognosis of rheumatic hearts in general. The working capacity of such a person is also considered.

Two chapters conclude the book, one on treatment, which is admirably written, and one on the prevention of the disease.

The book has an excellent introduction written by Dr. Poynton, and the value of the book in general has been increased by the large number of excellent plates, drawings and charts, which have been included. An index has also been inserted, and references to other works are to be found at the end of each chapter.

The printing and "get-up" of the book is good, and helps to emphasise that this work should figure in the libraries of every medical practitioner and student.

Pneumonia: Its Pathology, Diagnosis, Prognosis and Treatment. By the late R. MURRAY LESLIE, M.A., B.Sc., M.D. Edited and Revised by J. BROWNING ALEXANDER, M.D., M.R.C.P. Publishers, Wm. Heinemann, Ltd. Price 12*s.* 6*d.*

THIS book, for all practical purposes, may be divided into four groups: (1) Lobar Pneumonia, (2) Lobular Pneumonia, (3) Specific Pneumonias, and (4) Specific Treatment.

More than half the book is set aside for the consideration of lobar pneumonia in all aspects. The first chapter after the introduction is set aside for the ætiology and bacteriology of the disease, and in

it a real working knowledge of the cultural and atypical varieties of the pneumococcus is considered, together with their variation in virulence. The sources and methods of infection are clearly set forth. In the chapter on morbid anatomy of the disease, the usual pathological changes are detailed, and in addition the pathological changes of the commoner complications are given, so that one may obtain a complete series of notes on what one may expect to find in a case seen in the post-mortem room. A chapter on the clinical features of the disease is followed by a detailed consideration of the prominent symptoms and signs. An excellent chapter on atypical "types" follows, and the difficulties of diagnosing some of them is well stressed. Particularly do we like the description of Friedländer's Pneumonia, and evidence drawn from a quoted case as to the propriety of having a mixed vaccine ready for the treatment of such a case; also the manner in which he describes the two types of streptococcal pneumonias—one from "carriers," the other as a sequel of some local or general septic infection. Dr. Leslie lays stress on the dangers of pneumonia during pregnancy and the puerperium. An excellent chapter is then written on the complications and sequelæ of the disease, followed by one on the diagnosis in which the value of radiography is mentioned. We consider however that here mention should have been made of the difficulties of diagnosing a normal chest in the youung (cf. Normal Infant's Chest. Paton & Roward. St. Andrew's Institute for Research, Vol. II., p. 146). We were glad to see that the author stressed the fact that abdominal symptoms were often present in thoracic disease—this point, although taught regularly at all medical schools, seems in a large number of cases to fall on "stony ground." A chapter on prognosis leads up to a clearly written treatise on treatment. Treatment is divided up into two groups: (a) Active, and (b) Specific, and many useful hints and suggestions may be derived from reading these chapters.

Broncho-pneumonia, as usual, is divided into two groups: (a) The rare primary form, and (b) the common secondary form. The scheme of considering this type is followed out in the same excellent manner as in the lobar type of pneumonia. A well-written chapter on Influenzal Pneumonia—one of the best we have had the pleasure of reading—is included, and shows how pathological data, signs, symptoms and treatment were gathered from the outbreaks in 1918.

An interesting account is given of pneumonia occurring in children, and due attention accorded to the two special types—the cerebral and gastro-intestinal types.

The description of surgical or so-called ether pneumonia is one of the best we have read, and the author is to be congratulated on such an excellent special and necessary account. Few books in our experience mention the condition, let alone give an account of the condition.

Two final chapters are given up to specific drug and serum treatment, and keep up to the high standard of the book written before it. This has been carried out through the agencies of the Editor, Dr. J. Browning Alexander, who not only revised the original manuscript of the late Dr. Murray Leslie, and has introduced the most modern views in the bacteriology of the disease as published by the Rockefeller Institute, but re-written the chapter on vaccine therapy. One adverse criticism we would offer—we would suggest that the book would be improved if references were introduced at the end of each chapter, but this is very immaterial considered with the excellence of the book, which is up-to-date in every aspect.

The printing is of large size, easily read, and the book as a whole is well produced.

Hospital Information, etc.

Pass List.

University of Cambridge.

Third Examination for Medical and Surgical Degrees.

December, 1924.

Part II.

Physic, Pathology, Pharmacology.

R. B. Fawkes. F. D. Howitt.
J. Gray.

Part I.

Surgery, Midwifery and Gynæcology.

R. W. Cunningham. W. J. Montague.
H. W. Eddison.

Second Examination.

Part II.

December, 1924.

Human Anatomy and Physiology.

E. Clayton Jones.

University of London.

First Examination for Medical Degrees.

December, 1924.

E. Bellamy. H. G. McGregor.
C. E. P. Davies. E. R. R. Mallon.
R. H. Q. Edwards. H. C. Muirhead.
G. J. Clarke. H. Richards.
J. C. Heather. J. B. Robinson.
J. M. Johnstone. S. Shone.

Society of Apothecaries of London.

December, 1924.

Medicine.

T. McD. Kellough. F. R. Ratnager.

Forensic Medicine.

P. B. Skeels. C. W. Warne.

Marriage.

PARISH—DAY.—On the 17th, December, 1924, at Swavesey, by the Rev. R. Popham, John E. Parish, 25, Alan Road, Withington, Manchester, to Mary, youngest daughter of Alfred Day, The Elms, Swavesey, near Cambridge.

STOKER—MACQUEEN.—On December 30th, 1924, at St. Clement's Danes, George Morris Stoker, M.R.C.S., son of Dr. and Mrs. J. M. Stoker, of Beddington, Surrey, to Elsie Margaret, eldest daughter of the late George Macqueen, and of Mrs. Macqueen, of Montrose, Scotland.

Death.

SWAN.—On December 26th, 1924, at 75, Wimpole Street, after a painful illness most patiently borne, Una Gladys, the beloved wife of R. H. Jocelyn Swan, M.S.Lond., F.R.C.S.

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *January 31st, 1925.* *Number 954*

PASSIM

WE should like one day to have sufficient leisure to write a thesis on "bogeys," in which case one of our longest chapters would be devoted to the bogey of tradition. We would discuss the origin and canonisation of tradition, the unthinking, sheep-like mentality of its champions, and the degradation of those champions from freemen to serfdom under its iniquitous influence. But we would not be biassed; we would act as counsel for the defence as well as for the prosecution, and would point out the reasons—justifiable reasons—for venerating the aged, whether they be wines or habits. Usually there is some obvious reason for the tradition's existence as such, but sometimes there is none, as in the case of bread-throwing at dinner. This ancient and unclean habit had long since become not only a tradition, but a reflex action, so that a Resident, on sitting down to his dinner in the College, almost unconsciously collected one or two rolls of bread, which he forthwith broke into pieces, of a size convenient as missiles. It was the difficulty of erasing soup-stains from cloth that formed one of the most urgent reasons for the dark and sober suitings of the Hospital Resident Officers. This ridiculous and wasteful tradition has lately been recognised as the impostor that it is, and bread-throwing has, at least for the moment, been suspended. True the solution of cross-word puzzles at the table has taken its place, but this is a cleaner form of mental derangement, and there is a certain amount of ingenuity required to arrive at the name of a Scotch river of four letters, the first of which must be a P and which must end in Q N.

Our reason for mentioning tradition at all is that we have felt very tempted to omit "Passim" for the next two issues out of a respect for the feelings of some of our readers. Those who have suffered a classical education, and particularly those who have been educated in what was known a few years ago as the "new" pronunciation, pronounce 'Passim" with the *a* long as in "father," and to be faced by a word of so glorious a sound after the recent final Conjoint examination, must be to some very unwelcome. Examinations, as is known to all and more especially to referred candidates, count for very little in discovering the knowledge and practical ability of a student. The effects of nervousness, ill-health and over-work may easily produce in the examination-hall, a tongue-tied, trembling caricature of the practical and efficient worker of the daily hospital routine. But diplomas and degrees count largely in the outside world, and, as the only means of obtaining these pledges of professional ability, examinations count, so that the recent wholesale rejection of candidates must have caused a great deal of dejection.

We have been wondering what it was possible to say to encourage our unfortunates. We should probably still be wondering had we not taken an evening stroll on the night of publication of the result of the third test match with the Australians. That night London was hidden beneath the serried ranks of newspaper posters, the greater number of which bore the stirring words: "*England's glorious failure.*" There have been many glorious deeds attributed to England's might, but none has been more loudly acclaimed than the magnificent deed of only just failing to win the third test match. We had already lost the other two—both gloriously. Here is an extract from one of the leading London evening papers, issued on the receipt of the result of the second match:—

"England lost the second test match to-day by 81 runs, but she lost with her colours proudly flying—lost even more gloriously than she lost the first test match."

And now England has lost the third test match more gloriously than ever.

This seems to be Heaven-sent comfort to our disgruntled candidates. You are all glorious failures, you have failed magnificently. The paper, on which you first received the unwelcome news, seemed to blush with pride as you walked away from those ascending stairs, a fitting son of your glorious Motherland. Hold up your heads take courage and go on to still greater deeds, that when at last your epitaph must needs be written, it can be said of you—

"He greatly lived, he nobly strove,
And failed right mightily."

We have mentioned the cross-word puzzle. We have done so impulsively. As a general rule we abstain from encouraging the wild crazes of the American States, but there are times when we feel bound to give them some recognition. In doing so in this case we are following the lead of a very distinguished member of the Staff, who has not only become one of the finest cross-word puzzlers in London—and we feel confident that a team of London puzzlers would hold their own in competition with any similar team of puzzled New Yorkers—but who has actually inserted a puzzle of such ingenuity that the Editor of one of the leading London newspapers has declared it to be beyond solution by any of his constant readers. Such prominence in an entirely new sphere of work we have been forced to regard as a challenge. If a famous Surgeon can insert a puzzle, that can nonplus the newspaper-reading public, surely an infamous Editor can produce one of such intricacy that the far more intelligent GAZETTE-reading public will be reduced to a state of confusional insanity in its solution. This we have done. We offer no prize to those who consider that they have worked out our cross-word puzzle, feeling that the self-satisfaction at the display of so much intelligence will more than repay them for the time they have wasted. Moreover, the discovery of new medical terms may induce them to embark on voyages of discovery on hitherto unknown seas in the world of medicine, an advantage, for which the lucky Captain Cook might well award a prize to us. In fact, should the first reader who solves our puzzle, care to send us a prize, we shall be only too happy to publish his name in the next issue of the GAZETTE.

IN the account of the Commemoration Service in the last GAZETTE, the name of Mrs. Manning was included in the list of the names of Past Matrons of the Hospital. This was, of course, an error as, though Mrs. Manning received her training at Guy's, she was never the Matron. Mrs. Manning accompanied one of the Past Matrons to the Service, throughout which she sat with them, and this fact led to the association of her name with theirs in the newspaper reports. How can we confess it? Yet we must. We re-published the list of those present from those newspaper reports, without our usual careful editing. Bad, wicked Editor.

The Curse.—This musical medley of romance and horror will be given next week on Feb. 4th, 5th, 6th and 7th, in the Physiological Theatre. Tickets are being sent to all who have applied for them, as far as the seating accommodation will allow, and the dress-rehearsal on Tuesday, February 3rd, will be open to any who care to attend it, free and without tickets. Each evening the gallery will be open to those who have no tickets for the amphitheatre, and the President of the Residents hopes sincerely that the present influenza epidemic will allow the performance to take place as arranged, and that the patience and magnanimity of the illustrious audiences will allow it to proceed to its bitter end—as arranged.

Guy's Hospital Bicentenary Appeal.

WE are glad to say that since the last number of the GAZETTE the response from old Guy's men has been better and it is sincerely hoped that this will continue. The Appeal is not closed and it has been definitely decided that it will remain open until the 30th June at any rate. This still gives plenty of time for all those who have been unable to collect or to help us owing to illness or to their absence, to do what they possibly can during the next few months. The Appeal has now reached over £70,000. This is a great sum of money and since it is largely made up of small sums it shows how splendid the response has really been.

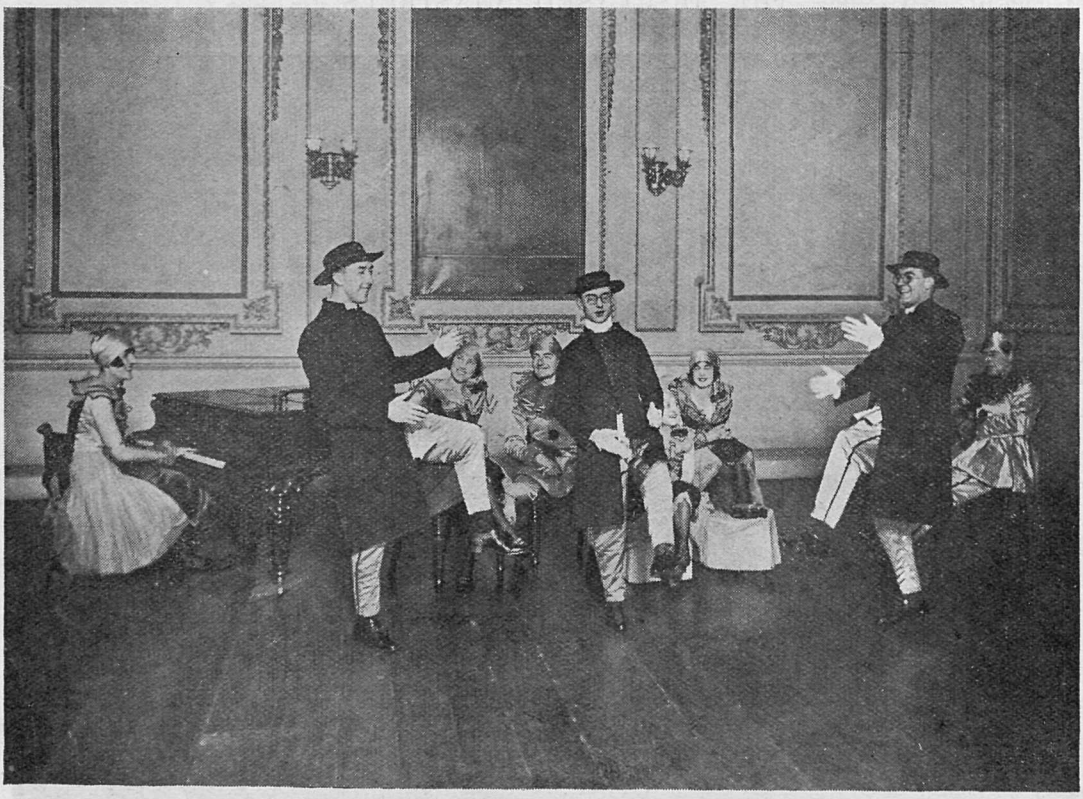
Unfortunately the St. Paul's Cathedral Appeal was opened at the very time when we had managed to obtain a great deal of publicity over our Bicentenary Service. It is natural that such a National cause should take precedence and we wish that Appeal every success, at the same time it means that renewed

THE DISGUYSED MINSTRELS.

Eileen Wildsmith. Hilda Rogers. Pat O'Meara. Keith Woodruff. Dave Whitlock.
Gladys Meagher. Oswald Morgan. Lolly Forman. Betty Eason.

efforts must be made to keep our own Appeal alive and to the front. Once more the Treasurer and Governors ask all for their utmost help.

The Disguysed Minstrels are doing wonderfully well. The performance at Croydon was the biggest they have ever given, and it shows how splendidly they can face a large hall and a large audience. It is impossible to give the exact amount they have collected at present, but it cannot be very short of £500.



Eileen Wildsmith. Hilda Rogers. Oswald Morgan. Betty Eason. Keith Woodruff.
Pat O'Meara. Lolly Forman. Gladys Meagher. Dave Whitlock.

Other performances are being arranged for at Watford (February 4th), Teddington, Chatham, and possibly Streatham.

The Disguysed Minstrels.

On Tuesday, January 27th, the Disguysed Minstrels gave a performance at the North End Hall, Croydon, and received a very enthusiastic reception. Considering the short time available for organising it was gratifying to see such a large attendance, of over 1,000—this speaks volumes for the efforts of those who so kindly assisted in giving publicity to the concert and in selling tickets. The whole troupe were in excellent form and gave one of their best performances. The fact that numerous requests have been received for a return visit is sufficient indication in itself of the impression they created and of their popularity.

The Minstrels have unfortunately lost the services of Mr. D. B. Whitlock, who has now gone into practice, and Mr. J. R. W. Richardson has taken his place. Judging by the reception he received at his first appearance he has undoubtedly come to stay.

All the artists are to be congratulated upon their splendid performance—with the result of

continual practice and determined hard work, they have developed into a very fine troupe. There is that perfect harmony and cohesion which is essential to the creating of a successful concert party.

The Guy's men in the district responded remarkably well to the appeal to sell tickets and the untiring efforts of Mr. and Mrs. Hinchliffe. Dr. and Mrs. Allen, Dr. Richards, Mr. Fenn, and Mr. J. H. Winston was largely responsible for such a splendid audience.

Our grateful thanks are also due to Messrs. Scott & Co., Publicity Agents of Croydon, who kindly undertook to display our posters on all their hoardings in the Borough, and to Messrs. Couldrey, Stationers, of George St., Croydon, who allocated one of their shop windows for a special display of the Guy's prints, etchings and portraits—the value of such effective advertising was evidenced by the large numbers who were attracted by the display.

The fact that all the arrangements were carried out so well is due to the efforts of the Nurses and Students who so kindly volunteered their services—they did exceedingly well and carried out their duties to perfection.

During the interval Dr. Fawcett made an eloquent and effective appeal to the audience and briefly summarised the needs of Guy's and the objects of the appeal. As a result of the collection taken soon afterwards, together with the proceeds from programmes, the sum of £33 was added to the Funds. The takings for the evening amounted to well over £100, but the exact proceeds are not yet known and the sum will be announced later.

Pass List.

Society of Apothecaries of London.

Primary Examinations

Parts I. and II.

January, 1925.

Anatomy.

J. Sherman.

Physiology.

M. H. Rashwan.

Conjoint Board.

First Examination.

Chemistry, Physics and Elementary Biology.

January, 1925.

Chemistry.

H. Richards. K. S. Fitch.

Physics.

H. Richards.

Elementary Biology.

L. Catchpole. C. Hortop.
A. Safey El Din. D. T. Jones.

Pre-Medical.

Chemistry.

R. S. L. Jones. C. D Malone.
R. Everett.

Physics.

C. E. Kurtz. R. Everett.
G. T. Scott. M. Lipschitz.

Second Examination.

Part I.

January, 1925.

Anatomy and Physiology.

S. J. M. de Nevasquez. †L. Barclay.
†F. E. G. Hopkins. W. V. Beach.
C. Gross. †L. E. Lane.
†C. E. Pedley. †G. M. Housden.
G. H. O. Thomas. †L. Brown.
†S. T. Williamson.

†Physiology only.

Part II.

Pharmacology and Materia Medica.

*J. W. Ellis. *J. C. Fast.
*M T. Brockman. *M. Shaw.

*Pharmacology only.

L.D.S.

Preliminary Science.

January, 1925.

Chemistry.

G. H. Billison. R. A. Bagg.
C. S. Laurens. S. Sharp.
E. J. Dalling. V. R. Preen.
E. M. Douglas. T. D. Raby.

Physics.

G. H. Billison. N. S. Gare.
C. S. Laurens. J. N. Hamman.
E. J. Dalling. P. W. Binsted.
W. A. Wilson.

Treatment of Syphilis.

By G. B. DOWLING, M.D., M.R.C.P., M.O. V.D. Dept., Guy's Hospital.

IT is a matter for regret that after fifteen years of intensive use of Salvarsan and its derivatives in the treatment of syphilis, no method of using the drug has been devised that will produce a cure in 100 per cent. of cases. If this ideal, however, cannot be attained, the slowly decreasing incidence of syphilis and the rarity of severe destructive tertiary lesions in these days must be accepted as proof that the treatment of the disease with this drug has produced, on the whole, satisfactory results. Nevertheless it is not too much to say that the use of this drug has often done literally more harm than good to patients, apart altogether from toxic effects due to the drug, for given in a half-hearted and slipshod manner to an infective case, a recurrence months or perhaps years after such treatment is extremely likely to take place.

In treating any given case of syphilis, it is absolutely essential to have some definite plan to follow out. It is quite useless to give subcurative treatment to an early case, and it is not so easy to "abort" early syphilis as is often believed. It is first of all necessary to ascertain as accurately as possible the exact stage of the disease at which the patient presents himself for treatment. There is no hard and fast division between the three classical stages of primary, secondary and tertiary syphilis, but it is convenient to divide syphilis into six stages for the purpose of selecting a plan of treatment.

Stage 1.—The first incubation period, that is from the time that the spirochæte gains entrance to the tissues to the time of the appearance of the chancre. It is necessary to remember that during this period the spirochætes are not confined to the point of entrance, but have gained access to the blood stream and lymphatic system. Neisser found that excision of the site of inoculation in a monkey twelve hours after inoculation was not sufficient to prevent the occurrence of the general disease later.

Stage 2.—The primary stage.

Stage 3.—The second incubation period, by this is meant the period elapsing between the moment of appearance of the chancre and the development of acute general tissue reaction or the stage of so-called secondary syphilis. This is the stage of maximum spirochætal septicæmia and general tissue invasion.

Stage 4.—The secondary stage, the stage of general tissue reaction. At the end of this stage all spirochætes have left the blood stream, and no further tissue invasion takes place throughout the disease. All further manifestations are due to local multiplication and activity of spirochætes that have been deposited in the tissues in this and in the preceding stage.

Stage 5.—The period of latency. By this is understood a period of one or two years that follow the secondary stage in an untreated stage, having either no clinical manifestations of syphilis or presenting late secondary lesions. After this follows

Stage 6.—The tertiary stage, the stage of local tissue reaction, characterised by development of gummata.

Treatment is divided into unit courses; two or more of these are given according to which of the above six stages is present. The choice of drugs is a wide one. Probably the original salvarsan remains the most effective remedy, but its use is limited to patients who can afford the time to spend at least twelve hours in bed at each administration, and therefore cannot be used at an out-patient V.D. Clinic. Of the various 914 and 606 derivatives it probably matters little which is chosen. At Guy's we use novarsenobillon and stabilarsan. We usually commence treatment with the former because it appears to have a rapid action upon the lesions. We continue with stabilarsan because the results on the Wassermann reaction after a trial of two years have been satisfactory. It is not improbable that bismuth will replace mercury entirely in the treatment of syphilis. Levaditi's discovery of the valuable spirochæticidal properties of this drug has been amply confirmed by clinical workers. We use it in combination with the arsenical preparations. We do not use mercury.

Dale has recently drawn attention to the fact that contrary to what Erlich originally expected, the action of salvarsan is not entirely a mass action of the drug upon the spirochætes. He states that "none of the compounds of salvarsan series which have reached practical trial and success in the treatment of spirochætal or

trypanosomal infection . . . . has a directly lethal action on the parasites in dilutions at all comparable to those which can be safely and effectively produced in the body of the host."

Erlich showed that the partial oxidation of salvarsan to the corresponding aminoxide produced a substance with an intensely direct lethal action on trypanosomes. Dale points out that recent research has upheld the supposition that reduction or oxidation of salvarsan by the tissues is an essential preliminary to its curative action. Moreover, he states that salvarsan which is practically insoluble at the body reaction, must be rapidly deposited on the tissue, and it is probable that it is slowly liberated in the form of the more active oxides at a rate that never produces a high concentration in the body and provides for their persistent action upon the spirochætes without danger to the host.

Dale also quotes Levaditi's researches on bismuth, showing that this substance, which has but feeble antispirochætal properties in vitro, has a powerful spirochæticidal action when mixed and incubated with liver extract. The conclusion here also is that cell activity enters into the action of this drug.

It can be seen that the object of treatment is not to flood the patient's tissues with as much salvarsan as possible in the shortest possible time, but to find just the dosage and interval of administration that can be tolerated with perfect safety and comfort, and that will produce the most satisfactory response on the part of the patient. This can only be judged by clinical results and by the effect of treatment upon the Wassermann or the sigma section.

In practice it has been found by trial and error that the largest quantities of salvarsan that can be tolerated, given at the shortest intervals are not necessarily productive of the best results, and somewhat prolonged treatment with moderate dosage divided into unit courses with a suitable interval of complete rest between courses has been adopted by the majority of clinicians working in this field.

The following routine treatment is given in the V.D. Clinic at Guy's on the male side—

Stage 1.—The first incubation period. One is seldom called upon to treat a male patient in this stage, because no patient can ever be certain that he has contracted the disease. But the question of prophylactic treatment for the wives of infected husbands arises not infrequently.

Within 48 hours of exposure.			
1st day	Neo-Salvarsan	·45 gm.	Bismuth gr. iii.
5th day	"	·6 gm.	" gr. iii.
12th day	"	·6 gm.	" gr. iii.
Within 7 days.			
1st day	Neo-Salvarsan	·45 gm.	Bismuth gr. iii.
5th day	"	·45 gm.	" gr. iii.
13th day	"	·6 gm.	" gr. iii.
20th day	"	·6 gm.	" gr. iii.

After 7 days, treatment is the same as for Stage 2.

Stage 2.—The primary stage. Excision of the chancre is probably useless, because other foci (neighbouring lymphatic glands) are already present. Treatment of an early primary case is likely to be completely successful, but the disease cannot be aborted with a few doses of an antisyphilitic remedy. The accompanying table taken in 1922 illustrates how difficult it is to eradicate syphilis, even at the earliest stages. The cases all had a negative Wassermann at the commencement of their treatment; the majority of them developed a positive serum reaction during treatment.

		Spirochætes in serum from chancre	Wasserman Reactions. 1st day	2nd dose	3rd	4th	5th	6th	7th	8th	9th	10th	11th
Case	1	+	—	—	—	—	++	—	++	—	—		
	2	+	—	+	—	—	—	—					
	3	+	—	+	—	++	++	—			—	+	—
	4	—	—	—	++	—	Ceased to attend.						
	5	+	—	++	++	+	+		—	Ceased to attend.			
	6	+	—	—	—	++	++	++	++	++	++	—	
	7	+	—	+			++	—	—	—	—	—	
	8	+	—	—	—	—	—	Ceased.					
	9	+	—	—		—	—	—	—				
	10	+	—	—		—	—						
	11	+	—	—		—	—						—
	12	+	—	—	—	+	—	—	—	—			
	13	+	—	—	—	—		—					
	14	—	+	+	+	—	—	—					
	15	—	—	++	—	Ceased to attend.							
	16	—	—	++	Ceased to attend.								
	17	+	—	—	+	Ceased to attend.							

It will be seen that out of 16 cases of early primary syphilis commencing treatment with a negative Wassermann reaction, 11 developed a positive reaction during treatment, and many of them maintained it for a considerable time.

For an early case with preliminary negative Wassermann reaction, maintaining it throughout treatment, the following course is given—

Course A.

1st day	Potassium Iodide gr. x t.d.s. p c.	Novarsenobillon ·45 g-m.	Bismuth (Bismostab) gr. iii.
Weekly intervals.			
1	"	" ·45 or ·6 g.m.	"
2	"	" ·6	"
3	"	Stabilarsan ·6	"
4	"	" ·6	"
5	"	Omit	"
6	"	Stabilarsan ·6	"
7	"	Omit	"
8	"	Stabilarsan ·6	"
9	"	Omit	"
10	"	"	"
11	"	Stabilarsan ·6	"
12	"	Omit	"
13	"	"	"
14	"	Stabilarsan ·6	"

If the Wassermann reaction remains negative throughout, treatment may be considered in a sense abortive. Three months' rest is now given, and then a second course (Course B) which is the same as Course A down to 8, except that stabilarsan is given for the first three doses instead of N.A.B. Potassium iodide is given for a fortnight before the second course.

This completes the treatment of such a case. After this the Wassermann should be taken every three months for the first year, and then every six months, the cerebro-spinal fluid to be examined at the end of the first and second years.

Stage 3.—The second incubation period. A clinically primary case with a positive serum at the commencement, or developing shortly after the institution of treatment.

Course A and Course B, as in early stages. Rest for four months, giving potassium iodide on final two weeks, then give Course C.

1st day	...	Potassium Iodide grs. x t.d.s.	...	Stabilarsan ·45	...	Bismuth gr. iii.
8th "	...	"	...	" ·6	...	" "
15th "	...	"	...	" ·6	...	"
29th "	...	"	...	" ·6	...	"
43rd "	...	"	...	" ·6	...	"

Suspend treatment and observe as in earlier cases.

Stage 4.—Cases with clinically secondary syphilis. Course A, Course B, and Course C, as in Stage 3, but note condition of the cerebro-spinal fluid at the commencement and again at the end and continue with Course C or D, as in Stage 5 if necessary.

Stage 5.—Latent syphilis, viz., cases of one or two years' history of untreated syphilis without clinical signs and with late secondary lesions.

1. Examine the cerebro-spinal fluid.

It is of interest to note at this point some remarks by Fordyce in a recent article with regard to central nervous syphilis. He has had the unusual opportunity of being able to follow up his cases of syphilis for as long as 20 years. He has for many years made careful examinations of the cerebro-spinal fluid from the earliest stages; his investigations including the cell count and globulin estimations, gold sol curve and Wassermann reactions. His conclusions are as follows :—

1. Invasion of the central nervous system occurs in the majority of cases during the period of general dissemination of the virus.

2. It is often checked, but seldom cured by the usual therapeutic methods. Relapses are due to residues after sub-curative treatment.

3. Late neuro-syphilis, including paresis and tabes, are not re-infectious from foci outside the nervous system, but are due to long persistance of the infecting organisms in loco.

4. If the nervous system is not involved in the early period of the infection it is extremely improbable that it will be in a later period. Vascular lesions and gummata may be excepted.

He considers the critical incidence of central nervous system involved to be about 25 per cent. of cases.

We may conclude for practical purposes that a case of untreated latent syphilis with a completely negative cerebro-spinal fluid, is unlikely to develop late neuro recurrences. Treatment must be carried further in a case with positive cerebro-spinal fluid, than in one whose cerebro-spinal fluid is negative.

These remarks do not apply to cases that have received subcurative treatment in the early stages. When relapses in such cases take place they generally do so at the stage at which they left off treatment; and even years after the original infection a fresh period of septicæmia and tissue invasion may take place.

2. *Give course B. Then ten weeks' rest with potassium iodide in the last two weeks, then Course C, or the following—*

COURSE D.

1st day.	Sulphoxyl Salvarsan	8 cc.	Bismuth	griii.
7th "			"	"
14th "	"	10 cc.	"	"
21st "			"	"
28th "	"	12 cc.	"	"

Three months' interval, repeat C or D.

Four months' interval, repeat C or D.

Six months' interval, repeat C or D.

Potassium Iodide in x gr. doses is given during each course of treatment.

Examine cerebro-spinal fluid at end of treatment, continue with Course C or D once a year if necessary.

Stage 6.—Tertiary syphilis. A number of clinicians are in favour of giving quite a short course of treatment. The lesions usually clear rapidly, but the Wassermann reaction can only rarely be altered. Clearly the part to be enquired into in order to decide whether to give a prolonged course of treatment or not is whether or not the central nervous system has become involved. If such is the case very prolonged treatment must be insisted upon, and even the fullest treatment will not necessarily prevent late neuro-syphilis. The prognosis cannot be regarded as satisfactory. However, when careful examination of the cerebro-spinal fluid fails to reveal any abnormality, the outlook may be regarded as quite good. It must also be remembered that in the pre-salvarsan days the prognosis of syphilis was not necessarily desperate. *It may safely be stated that no case was ever cured by treatment*, yet according to a standard text-book about 70 per cent of cases enjoyed good health and lived to a ripe age. We like to give a somewhat intensive course to be on the safe side, though, as a fact, the majority of tertiary syphilitics fail to attend for treatment after their lesions have cleared.

The V.D. Clinic is not, as a rule, called upon to treat tertiary syphilis, but the suggested treatment is the same as for latent syphilis, except where contra-indications, such as old-age, arteriosclerosis, cardio-vascular involvement, chronic nephritis of non-syphilitic origin, or other contra-indication exists. In such cases the treatment is less intensive, smaller dosage being used.

I am indebted to Mr. V. E. Lloyd for permission to publish this account of the routine treatment of syphilis which has been adopted in the V.D. Clinic.

Dental Notes.

The Value of Local Anæsthesia in Dental Surgery and its Methods of Application.

By G. W. GATHERGOOD, L.D.S.

The value of local anæsthesia in dental surgery is undoubted. Were it more often employed, a visit to the dental surgeon would be robbed of most of its terrors. The public would seek advice and treatment earlier and more frequently, with a consequent improvement in their dental efficiency.

The value of local anæsthesia is well shown by the writer's experience with a recent patient. This boy, during his first visit, while a small occlusal cavity was being excavated, fainted twice, and gave no definite idea that he wished to undergo further conservative treatment. He was given a novocain injection, and the cavity was painlessly prepared. He was further assured that, should the preparation of any subsequent tooth prove too painful, he would be given similar relief upon request. He was greatly re-assured, and found it possible to obtain much more time off from school than he had previously hoped. After the first day, he never again fainted, and the writer is of opinion that, largely owing to the value of local anæsthesia, he will not again avoid conservative treatment through any fear of the dentist's chair.

From the patient's point of view, the chief advantage of local over general anæsthesia lies in the fact that he does not lose consciousness. Many people dislike the idea of being put to sleep, and others again are fearful lest they may say something indiscreet while unconscious. From the operator's point of view, the chief advantages of local anæsthesia are its duration, its convenience and its freedom from danger.

There are times when unexpected difficulties arise during the extraction of teeth, and it is disappointing for the patient to come round from nitrous oxide administration to find that the necessary teeth have not been removed. It has happened that, while under nitrous oxide, the patient has had the unhappy experience of being conscious of the extraction of the last tooth. Under a local anæsthetic the operator has ample time, and he may divide the roots of a molar with a burr and extract them separately. He may also remove a difficult exostosed root or a fractured apex with the minimum destruction of alveolus. The resulting alveolar ridge is more pronounced if no bone is removed during extraction, and this fact has an important bearing upon subsequent prosthetic treatment.

Where a prolonged anæsthesia is necessary, as for the removal of an impacted lower third molar, the preparation of teeth for bridge work, resection of the gingivæ in pyorrhœa, deep scaling for the removal of seminal tartar, the cutting of cavities or operations upon the antrum, local anæsthesia is invaluable. In all these cases the alternative is prolonged general anæsthesia with its attendant risk, either at the time or subsequently from pneumonia.

The expediency of local anæsthesia must not be overlooked. A skilled anæsthetist is not always available, and in any case many patients can ill afford the additional fee for his services. Local anæsthesia enables the operator to carry out his treatment unaided, and, in cases of necessity, to operate in the patient's own house with only a negligible amount of easily transported equipment.

When anæsthesia is obtained by the injection of novocain, the addition of adrenalin to the solution gives additional aid to the operator by presenting a highly anæmic field of operation. This anæmia is of great value in permitting neat and accurate operation. It is greatly appreciated when a buried root has to be removed, or when an apicectomy has to be performed. In fact, this unobstructedness of the field is of the greatest assistance in every variety of operation that we are asked to perform.

Under local anæsthesia the operator may extract deliberately, and should a tooth slip to the back of the mouth, at all events there is no chance of its finding its way down the air passages.

No account of the value of local anæsthesia would be complete without some allusion to the help given by the co-operation of the patient. The head may be placed in the most convenient position, and, in the event of mucus or blood collecting to an undesirable degree, the operator may again have a clear field by requesting the patient to rinse the mouth. Under general anæsthesia, the gag takes up valuable space in the mouth, and it has happened that the patient has come round to find that a sound tooth has been loosened by its use, or perhaps with a none too easily explained injury to his lip or tongue.

In short, local anæsthesia is convenient, cheap, efficient, and its progress has been accelerated above all by that want of perfect safety which is still inherent in general anæsthesia.

We may now briefly consider the contra-indications to local anæsthesia. It should never be employed for highly strung nervous individuals, nor, in the majority of cases, for young children. If the mouth is in a septic condition, such as is found in ulcerative stomatitis, the injection must be postponed until the sepsis has been cleared up. It is often possible, however, to avoid passing the needle through an inflamed area by choosing a regional injection.

Local anæsthesia, and in many cases also general anæsthesia, is contra-indicated in patients who are suffering from or recovering from influenza, puerperal fever, septicæmia or any of the acute fevers. In these cases the possibility of blood borne auto-infection of the puncture has to be considered.

There are many cases where the adrenalin has to be cut down in amount or omitted altogether. It should be omitted in cases of heart disease, in pregnant women and in patients past middle age in whom the blood pressure is high. After the injection of adrenalin there is a temporary increase in blood pressure, lasting perhaps for some five or ten minutes, due to direct stimulation of the heart and contraction of the smaller arteries.

Methods of Application of Local Anæsthesia.

The most common form of application of local anæsthesia is by means of injection of a suitable solution.

Another method of employing local anæsthesia is by means of ethyl chloride refrigeration. This method is often painful, but may sometimes be useful for lancing abscesses or for extracting loose anterior teeth. It has been recommended for extractions in children on the

ground that the small amount of vapour inhaled will produce a slight but helpful narcosis.

Local anæsthesia may be produced by the application of anæsthetics to the mucous membrane, its efficiency depending upon the absorbent qualities of the tissues concerned. Cocaine hydrochloride, in a five or ten per cent. solution, is perhaps the most efficient drug for this purpose, but a twenty per cent. solution of novocain often gives good results. This absorption anæsthesia is sufficient for finishing the cervical edge of fillings, the fitting of bands, the application of ligatures, the insertion of the hypodermic needle or for excising a fragment from the edge of a lingual ulcer for microscopical examination. The mucous membrane is dried with wool and warm air, and the solution is then painted over the surface.

A modification of this principle is employed in pressure anæsthesia. It is used for the immediate extirpation of pulps, which must be healthy. Otherwise there is the probability of infection of the peri-apical tissues. A four-walled cavity is obligatory, and, if necessary, one or more walls can be built up with cement. With the rubber dam in position, as much decayed dentine as possible is excavated, and the cavity is wiped out with chloroform. The cavity is then sponged with some germicidal agent, such as one-fifth per cent. perchloride of mercury, and is dehydrated with absolute alcohol and warm air. One-twelfth of a grain of cocaine hydrochloride, finely powdered, is placed over the pulp. Should there be any exudate from the pulp, this will serve to dissolve the cocaine; in its absence, a drop of a solution of adrenalin will be needed. The adrenalin is useful in that it controls the subsequent hæmorrhage, and therefore there is less risk of subsequent discoloration of the tooth. Alternately, a small pledget of wool, soaked in a twenty per cent. novocain solution, may be employed. The cavity is nearly filled with a piece of warm unvulcanized rubber, and gentle, continuous pressure is applied with a suitable instrument. Loeffler suggests taking a short piece of orangewood, and shaping it to fit the cavity, then placing it upon the rubber, and letting the patient close his teeth upon the stick, gradually increasing the force. The pressure should be increased gradually, being relaxed if pain is caused, and, after a short time, depending upon the position and size of the exposure, the operator should be able to use quite severe pressure without inconvenience to the patient. The pulp may now be rapidly extirpated.

For local anæsthesia by injection, novocain is almost exclusively used to-day. As an isotonic solution is essential if after-pain is to be avoided, the novocain is dissolved in distilled water, to which has been added the requisite amount of salts. There are many such solutions used; perhaps the most satisfactory is Fischer's modified Ringer solution, which contains—

Distilled water	100·00 c.c.
Sodium chloride	0·50 gramme.
Calcium chloride	0·04 gramme.
Potassium chloride ...	0·02 gramme.

An isotonic solution is one possessing the same osmotic pressure as the tissue fluids and blood, and which does not disturb the osmotic balance between the tissue cells.

A diluted isotonic solution, or, in other words, a hypotonic solution, if injected, causes a swelling of the tissue cells, which may well proceed to rupture of the cell membrane.

If, on the other hand, an isotonic solution is concentrated by evaporation, and the resulting hypertonic solution is injected, it rapidly absorbs water from the tissue cells until the osmotic pressure is equalized. Dr. Arthur Smith has a convincing method of demonstrating to his students the necessity of injecting only physiological isotonic solutions.

Three microscopic slides are taken, and on the first is placed a drop of isotonic Ringer solution, on the second a drop of distilled water, which is, of course, hypotonic, and on the third a drop of hypertonic Ringer solution—this latter being taken from some ordinary Ringer solution which has been boiled down to half its original bulk. To each slide is now added a drop of fresh blood, and the slides are examined under the microscope. The slide with the hypotonic solution, distilled water, shows the red corpuscles expanding, and many actually breaking, as the result of excessive absorption.

The red corpuscles in the hypertonic solution are seen to shrink and become crenated, while those in the isotonic solution reveal no change in their form whatsoever. Such tissue changes as these produce postoperative pain, which can be avoided by using an isotonic physiological solution, injected slowly, at blood heat.

The efficacy of novocain is enhanced by the addition of suprarenin, the active principle of the suprarenal gland. Unlike novocain, this is a highly toxic drug, and the maximum safe dose is probably about one four-hundredth of a grain; this corresponds to the amount contained in three "E" tablets. A two per cent. novocain solution is suitable, and is obtained by dissolving one "E" tablet, which contains 0·02 of a gramme of novocain, in one cubic centimetre of Ringer solution.

Iridio-platinum needles may be used with advantage; they may be bent several times without danger of breaking. Steel needles should be

used once and then discarded—if put away otherwise than perfectly dry, they are apt to rust, and may break during an injection.

The most rigid asepsis must be observed throughout, and, prior to inserting the needle, the mucous membrane should be dried and sterilized with a mixture of equal parts of liquor iodi fortis and tincture of aconite. The addition of aconite is useful in that it allays the slight pain caused by the prick of the needle. No injection should ever be made into or through an infected area, such as an abscess or a patch of inflamed mucous membrane.

The following description shows the method of injection in the superior maxilla:—

Second and Third Maxillary Molars.

The pulps of these teeth are supplied by the posterior superior dental nerve, which also supplies the external alveolar plate and the overlying gum. Therefore, for cavity preparation or extirpation of pulps, it will suffice to deposit the solution around the place where the nerve enters its canal on the posterior aspect of the maxilla. The short needle, attached to a hub angled at about 130 degrees, is inserted at the level of the apex of the posterior buccal root of the second molar. The needle is advanced in an upward, inward and backward direction. The point is kept close to the bone, but should not pass under the periosteum. About one cubic centimetre of the two per cent. solution is injected. If extraction of these teeth is desired, an additional injection is necessary to anæsthetize the anterior palatine nerve, which supplies the inner alveolar plate and the palatal gum. The needle is inserted half-way between the mid line of the palate and the necks of the teeth, rather posterior to the last erupted molar tooth. Not more than one-half cubic centimetre is injected. As with all palatal injections, this must be done slowly, as otherwise severe pain will be caused by the stretching and tearing of Sharpley's fibres.

First Maxillary Molar.

The posterior buccal and palatine roots of this tooth are supplied by the posterior superior dental nerve, while the anterior buccal root is usually supplied by the middle superior dental nerve. If all three molars are to be extracted, the injections described for the second and third molars will suffice if an additional sub-mucous, sub-periosteal, injection is made above the anterior buccal root. If, however, this tooth alone needs attention, it will be sufficient to make sub-mucous injections, on one side above the palatal root, on the other side above and between the apices of the buccal roots, the alveolar plates being quite porous around this tooth.

The Maxillary Pre-Molars.

The nerve supply to the pulps and external alveolar plate and overlying gum is from the middle superior dental nerve. The external alveolar plate is often dense hereabouts, but it is usually sufficiently porous to allow diffusion of the solution if the injection is made high up, above the level of the apices. Should this method fail, owing to the denseness of the bone, Parrott's intra-osseous method may be employed, or the entire second division of the fifth nerve may be blocked where it crosses the spheno maxillary fossa. For extraction, no additional injection is necessary if either of the two latter methods are employed; if, however, the former injection is utilized, the inner nerve loop must be anæsthetized by a palatal injection opposite the teeth concerned.

The Maxillary Canine.

The anterior superior dental nerve which supplies this tooth is deeply situated, and the outer alveolar plate is usually rather dense. A sub-mucous injection at the apex of the tooth often fails to permit painless cavity preparation. Some authorities even recommend that an infra-orbital regional anæsthesia should always be employed for this tooth.

However, for extraction a sub-mucous injection labially and palatally will often suffice. A straight line drawn from the supra-orbital notch to the mental foramen will pass through the infra-orbital foramen and along the axis of the second upper pre-molar. The infra-orbital foramen should first be palpated with the finger, and a spare syringe with needle attached should be laid upon the face, with the point of the needle upon the site of the foramen. A glance at the position of the barrel of the syringe in relation to the second upper pre-molar will be of value in the subsequent injection, by ensuring that the needle is inserted for exactly the required distance. While the first finger is held upon the face over the foramen, and the cheek is reflected with the thumb, the needle is inserted opposite the second pre-molar and three or four millimetres away from the bone. The needle is advanced upwards and rather inwards, and two cubic centimetres of solution are deposited under the pulp of the finger, around the opening of the infra-orbital foramen. The skin is then gently massaged, and the operator endeavours to massage the solution upwards and backwards towards the canal.

Anæsthesia of the anterior superior dental nerve should result in about ten minutes,

THE MAXILLARY INCISORS.

For conservative operations upon these teeth a sub-mucous injection above their apices is usually ample, the outer alveolar plate being porous. The solution should be well massaged into the bone, it being necessary to reach the anastomasing branches of the anterior superior dental nerve of the opposite side. For extraction a palatial injection behind the first incisor will block the naso-palatine nerve, which supplies the anterior portion of the hard palate and inner alveolar plate.

When several adjoining maxillary teeth are to be extracted, the horizontal infiltration method may be used, thus avoiding repeated puncture of the mucous membrane. A long needle is entered at the level of the apices of the teeth, and is advanced horizontally along the surface of the outer alveolar plate. A portion of the solution is deposited opposite the apex of each tooth. The inner nerve loop is blocked by injections at the anterior and posterior palatine foramina, as previously described.

The whole of the second division of the fifth nerve may be blocked at the point where it crosses the spheno maxillary fossa. Owing to the close relation of the optic nerve and the consequent risk of its infiltration, this injection is not very desirable. There is also a chance of injecting into one of the vessels in the pterygoid plexus.

LOCAL ANÆSTHESIA IN THE MANDIBLE.

The pulps of the mandibular teeth are supplied by the inferior dental nerve, which supplies also the outer alveolar plate and all the overlying gum anterior to the second molar tooth. Posterior to this the buccal muco-periosteum is supplied by the long buccal nerve. The lingual gum is supplied by branches of the lingual nerve.

Owing to the denseness of the alveolar plates sub-mucous infiltration in the mandible is limited to the incisor region, where the bone is fairly porous. Penetration of the solution in the pre-molar and molar regions is only possible if the injection is made under considerable pressure at the interdental papilla, whence the solution can infiltrate the periodontal membrane and diffuse into the fundus of the alveolus. Best results attend in young subjects and in cases where the teeth are loose, but failure results where the teeth are firmly implanted in a dense, sclerosed jaw.

The mandibular incisors may be anæsthetized for conservative treatment by a sub-mucous injection into the incisor fossa. For extraction an injection into the lingual gum is also needed.

An injection at the mental foramen blocks the inferior dental nerve at this site, thus permitting operations upon the teeth anterior to it. As there exists a certain amount of anastomosis between the two sides, the incisors will in some cases be still sensitive after a single mental injection. In this case the injection may be repeated on the opposite side.

Extraction of the molars, especially in young subjects, may often be painlessly performed after injection into the inter dental papillæ on either side of the tooth concerned.

Fortunately there exists a sure and simple method of producing anæsthesia in the pulps of all the lower teeth. By this method the inferior dental nerve is blocked at the point where it enters the inferior dental canal.

The technique here described applies to a mandibular regional injection of the right side. The patient's head is placed in line with the trunk and so inclined that the lower teeth are presented in a horizontal plane. The operator stands in front and places the pulp of his left forefinger in the retro molar fossa, the finger being turned so that the finger nail faces the teeth of the opposite side of the mouth. The mucous membrane and the operator's finger are then painted with iodine and the long needle is inserted close to the operator's finger nail, using it as a guide. In adults the site of puncture should be about one centimetre above the level of the occlusal surface of the lower teeth. In children and in senile subjects the level is slightly different. The needle is advanced cautiously in a horizontal direction until its further progress is arrested by the internal oblique ridge. It is now slightly withdrawn and is guided by the finger nail so that it passes just internal to the ridge. It is now advanced about half a centimetre and half a cubic centimetre of solution is then injected in order to block the lingual nerve. The barrel of the syringe is now swung over to the left side of the mouth and the needle is advanced horizontally in close proximity to the bone, but not under the periosteum, until it comes up against a bony prominence. At this point the needle end should lie in the sulcus just above the orifice of the inferior dental canal, between the bone and the inferior dental nerve and vessels. It will also be lateral to the internal pterygoid muscle, which will not, at any time, have been perforated by it. Two cubic centimetres of solution should be slowly injected in this situation. This injection often fails to infiltrate the long buccal nerve, and for this purpose, if extractions are to be performed in the molar region, an injection may be made opposite

the second molar. The needle is inserted in the sulcus between the gum and the cheek and half a cubic centimetre of solution is injected.

It will be remembered that there is an anastomosis of nerves across the mid line of the mandible, and it will probably be necessary to anæsthetize these fibres when dealing with the canine tooth and the incisors. An injection at the opposite mental foramen will meet the case.

Perhaps one of the most controversial aspects of local anæsthesia is that which deals with after-pain. It would appear possible that many a case of such pain is put down to the effects of the injection when it might just as easily be ascribed to the subsequent operative procedures.

Dr. Arthur Smith has tabulated the causes of after-pain due to the local anæsthetic, and it will be seen that nearly all these causes may be avoided.

(1) First and most important, the solution must be isotonic, and it would seem that the hypertonic solution is even a worse offender than the hypotonic.

(2) The injection may be too rapid, causing rapid distension of the tissues and consequent tissue injury.

(3) The injection may be made into a ligament or a muscle, whence it is very slowly absorbed.

(4) From deteriorated drugs.

(5) From employing a stock bottle solution containing preservatives, such as acids or thymol.

(6) From injecting beneath the periosteum, causing separation of the periosteum from the bone.

(7) Infection due to the solution or the syringe or needle being infected.

(8) Infection due to taking infection from the mucous membrane down into the deeper tissues.

(9) By repeated punctures or changes of direction of the needle point.

(10) From excessive massage after injection.

(11) From injecting air into the tissues.

(12) From the spread of infection by injection into parts where there is an accumulation of pus.

Dr. Lewis, in 1919, was responsible for an excellent article in which he claimed that after-pain was frequently due to the chilling of the anæsthetised part. Owing to the constricting action of the adrenalin, the local circulation is retarded, and the area is thus prevented from receiving the normal amount of heat from the blood. On account of the anæsthesia, the patient is unable to feel the cold, and Dr. Lewis believes that after-pain is almost invariably suffered by nearly everybody in proportion as the temperature is lowered during the period of anæsthesia.

Dr. Lewis therefore advises that patients should keep the face protected until the anæsthesia has worn off, not only in winter, but also on cool summer days, and particularly if the patient is to drive home in an open car.

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Block Anæsthesia and Allied Subjects. ARTHUR E. SMITH. (1921.)

Guy's Hospital Dental School.

Student Demonstrators of Dental Histology.

JANUARY—MARCH, 1925.

The following students have been appointed:—

Manners, F. D. Woodhead, E. C.

The B.D.S. London.

AT the Second B.D.S. Examination, the first of its kind ever held, Guy's secured a 100 per cent. success. There were three candidates from the Guy's Dental School, each of whom passed, while the only other candidate, who came from the Royal Dental Hospital, was unfortunately referred. It is hoped that this new examination, so auspiciously begun, will always remain "easy money" for Guy's students.

Publications Received.

The British Medical Journal, The Nursing Times, The Journal of the Architectural Association, The Burma Medical Times, The Medical Review, The Journal of the Royal Naval Medical Service, The Isis, The Middlesex Hospital Journal, The Northerner, The Medical Journal of South Africa, The Hospital Gazette, The Gownsman.

Tales of Long Ago.

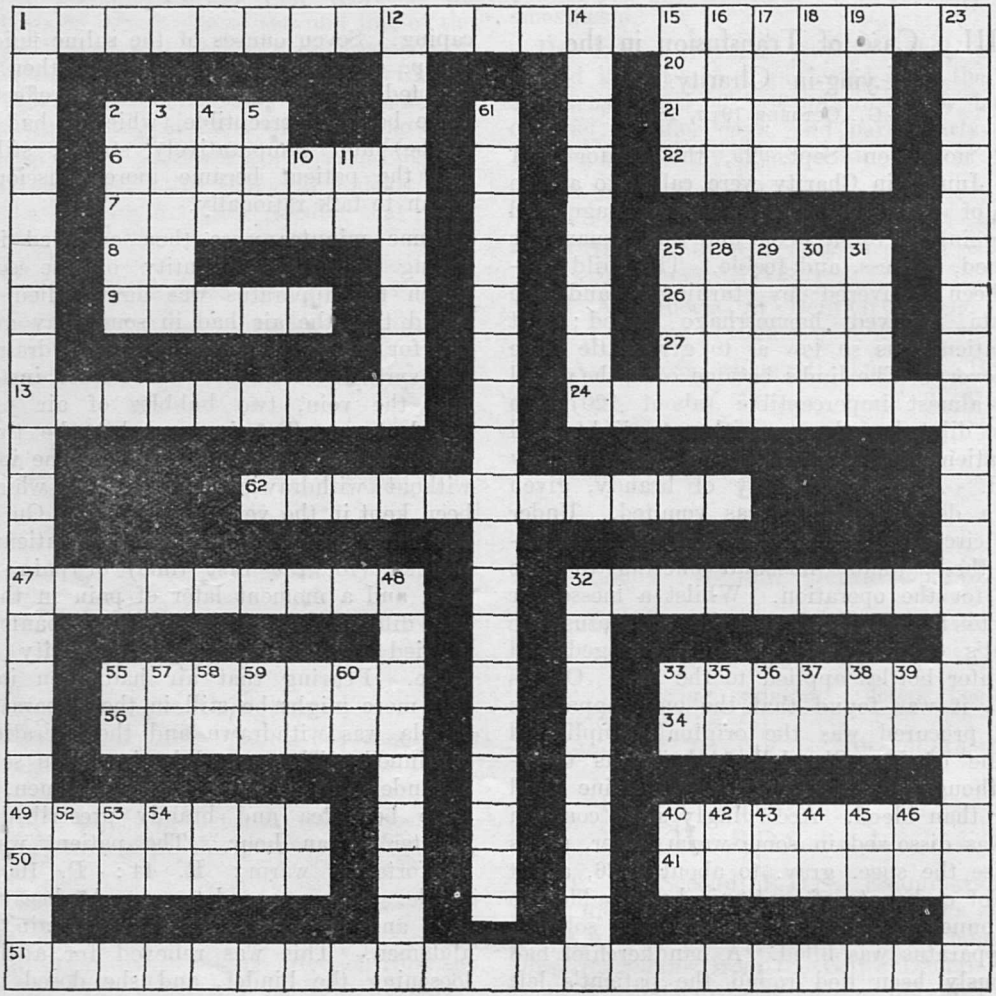
III. Case of Transfusion in the Lying-in Charity.

(G.H.G., October 19th, 1872.)

AT noon, on Sept. 25, the Senior and Junior in Charity were called to a case of *placenta prævia*. Hæmorrhage had been going on for a week, and the woman was blanched, restless, and feeble. The child having been delivered by turning; and the placenta removed, hæmorrhage ceased; but the patient was so low as to give little hope of recovery. The limbs became cold, the radial pulse almost imperceptible (about 120), the pupils dilated and unsensitive to light, and the patient so drowsy as to be with difficulty roused. A small quantity of brandy, given with a dose of secale, was vomited. Under these circumstances it was decided to transfuse, the patients' husband offering to give blood for the operation. Whilst a messenger went to the Hospital for the apparatus the patient's clothing was partially changed and hot water bottles applied to the feet. On its arrival it was found that the only apparatus to be procured was the original complicated machine of Dr. Blundell, and it was therefore thought advisable to use a saline fluid rather than blood. Accordingly some common salt was dissolved in some warm water, so as to raise the spec. grav. to about 1026, about a gr. of carbonate of ammonia being added to each ounce of fluid: and with this solution the apparatus was filled. A handkerchief had previously been tied round the patient's left arm, but, as no veins were visible, about an inch and a half of skin was transfixed in a transverse direction a little below the bend of the elbow and towards the ulnar side, care being taken not to injure the superficial veins. The patient appeared scarcely to feel the incision. On searching among the superficial fat thus exposed only one small vein—or perhaps a nerve—could be found. The incision was, therefore, lengthened for another inch on the ulnar side. Here a vein, large enough to admit the canula was exposed. No great difficulty was experienced in opening it and inserting the canula, scarcely any blood escaping. Seven ounces of the saline fluid, at a Temp. of about 100° Fahr., were then slowly injected into the vein with marked effect. The pulse became perceptible (which it had ceased to be) and comparatively strong, still 126, and the patient became more conscious and began to talk rationally.

Some minutes were then occupied in preparing a further quantity of the solution. When the apparatus was again filled it was found that the air had in some way got into it; for on sending the first fluid drawn into the syringe back into the funnel instead of into the vein, two bubbles of air escaped. As, however, the air seemed to be thus got rid of, it was decided to continue the injection without withdrawing the canula, which had been kept in the vein all the time. On forcing the fluid towards the vein the patient complained (for the first time) of pain in the arm, and a moment later of pain in the back and difficulty of breathing, accompanied with hurried respirations and irregularity of the pulse. Fearing that air had been injected, and more might be still in the apparatus, the canula was withdrawn and the operation discontinued. The wound having been sewn up, a binder was applied to the abdomen, and a little beef tea and brandy prescribed every quarter of an hour. The patient was now comfortably warm: R. 44: P. 160, very feeble. Before long, however, she became restless, and began to complain of pain in the abdomen. This was relieved for a time by loosening the binder, and she dosed quietly. But extreme restlessness and pain soon returned, and, on patient's begging for something to ease her, fifteen minims of laudanum were given with her brandy at 5.30. She also asked for beer, but when brought refused it, and manifested remarkably little thirst. About 6.15 she fell into a deeper sleep, and began to breathe slowly—14 per minute. At 6.30 p.m. (about 4 hours after the operation) respiration ceased, and no heart sounds could be heard; and although several doses of brandy were afterwards swallowed no respiration took place, nor could the heart be heard to beat again. No P.M. was made.

Cross Word Puzzle.



ACROSS.

1. An infective disease.
2. Scrutinise.
6. Vegetable astringent.
7. Found in abdomen.
8. Personal pronoun (latin accusative).
9. Exogenous or Endogenous.
13. A common symptom of heart failure.
20. Pertaining to a country N.E. of Palestine—erase last two letters.
21. Blood test.
22. Embryonic opening.
24. In every department.
25. Worn by King Arthur (American spelling).
26. Prehensile claw of certain crustacea.
27. Capsule of :—?
32. Living on others (reversed).
33. Mostly from the Boro.
34. Structure in internal ear, associated with sense of position.
40. A gland.
41. Helps diagnosis.
47. Often made in error.
49. Female organs.
50. Branch of External Carotid Artery.
51. Pathological Organism and Parasitic in water snails (two words).
55. Back of Tivoli.
56. Part of thorax.
62. Occurs once in the history of the hospital.

DOWN.

1. Words denoting structure in throat.
2. An Explorer and a dressing.
3. A carving in relief.
4. Masticated.

5. A Fen river.
10. City phonetically.
11. First two letters of a Christian name.
12. A common disease.
14. Neoplasms.
15. Tropical disease.
16. Part of the verb "to be" (Latin, future tense).
17. A mouth wash (reversed).
18. Mohammedan Priest.
19. Name for a localised part of the Pia-Mater.
23. Eye condition—two words.
25. What a Resident does occasionally.
28. Vegetable laxative.
29. Mind (dead language).
30. Sport on horseback—add "T" and behead.
31. Frog.
32. Use in Gout.
33. Rank in Navy (abbrev.).
35. Preposition.
36. Preposition.
37. Pronoun (French).
38. Part of India (abbrev.).
39. Part of Bible (abbrev.).
40. Adverb and conjunction.
42. First two letters of alimentary infection.
43. At fault this Christmas (abbrev.).
44. Initials of a physician.
45. Same as 39.
46. Artery (abbrev.).
48. Taken after examinations.
52. Medicinal wine (abbrev.).
53. Conjunction.
54. Regiment (abbrev.), two letters of.
55. Adverb and conjunction.
57. Mental condition (abbrev.).
58. Errors excepted.
59. First two letters of a degree.
60. Same as 11 down.
61. A year.

Reviews.

The Bicentenary Gazette.

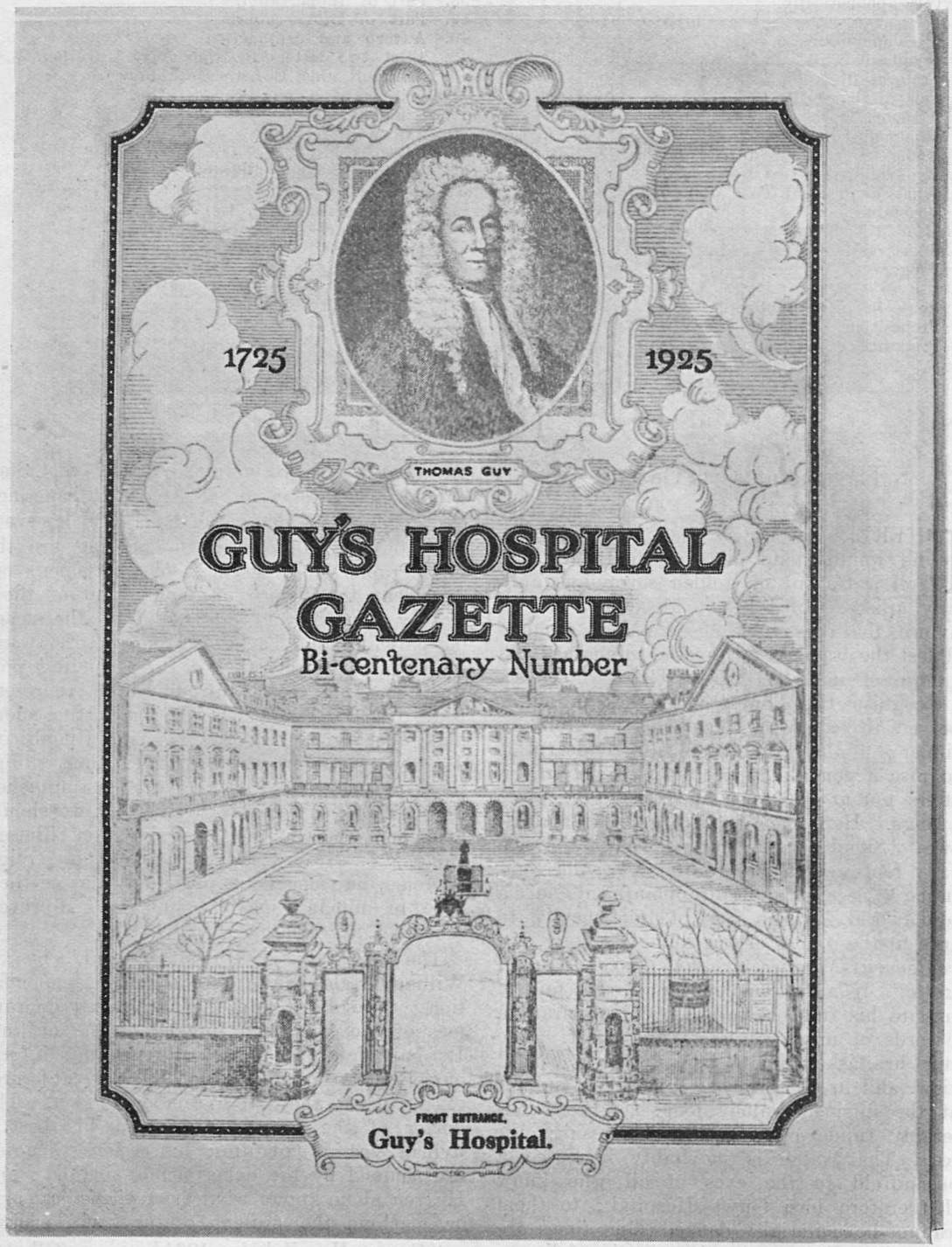
By FRANK COOK, F.R.C.S.

THERE was once a man who bet that he would stand on London Bridge and sell a trayful of golden sovereigns at a penny apiece. In spite of his endeavours to convince the passers-by, he kept his pounds and lost the wager. So are the minds attuned of those of us who walk. They who learn to recognise the double bluff are presently observed to cross their bridges in a Rolls or Daimler; to those who have already learnt to recognise a generous offer, the mode of transit matters not at all—soles and tyres give place to wings. Here then is pure gold for half-a-crown. Should this assurance meet the eye of any footsore reader embittered by the commonplace deceits and disappointments of a sordid world, let me beg of him merely to glance at the object of our humble eulogy, the *Bicentenary Number of the Guy's Hospital Gazette*. If a cursory survey should fail to stimulate his further curiosity and admiration, no words of mine can reach his heart. The editor has asked for a comparatively candid review, and in all seriousness one must submit that the intrinsic value alone has been considerably under-estimated in assessing the price. That value is inevitably increased a thousandfold in the eyes of all who know and therefore love Guy's Hospital; to them it cannot be materially defined; but times are hard and creditors are unimaginative folk.

The general quality and illustrations are excellent; if certain members of the Staff should seem to wear a somewhat sanctified expression, it is not more than they deserve—the camera cannot lie. Outstanding are the photographs of that best of sportsmen, our President the Prince of Wales, and of those worthy women who ministered to the needs of patients and bacteria alike in 1865 and 1875. One regrets that a corresponding portrait has not been introduced to represent those bearded gentlemen who paced the colonnade in the good old days of pus and poultices. To-day we are obsessed with shaving, shingling, and asepsis; but a very distinguished Guy's man has recently urged that we should love and cherish the bacterium for himself alone. In 1975 Professor Eyre may reign supreme, and massage pupils may devote their time to mincing meat for media. However, *revenons aux moutons*.

The "History of Guy's Hospital," by Sir William Hale White, needs no recommendation; the subject and the author are guarantees of the style and interest of the outline. Its only fault is brevity: we cannot inform ourselves too extensively of those great figures of the past; they were wonderful men. The doctor of the present day is at his best a hybrid sort of creature; his serious thoughts are chained by the experimental method; and Heaven alone knows what type of medical man or machine the present century will evolve.

"Guy's Hospital in 1924" is contributed by the Superintendent with characteristic



THE BICENTENARY GAZETTE.

lucidity. Incidentally it is gratifying to find the oxygen chamber in use, and to know that the Hospital possesses at least one Glad Iron.

A recapitulation of "The History of Guy's Hospital" is opportune, as the Dean suggests in a preface to his admirable summary. Medical education is in the melting pot, and reconstruction schemes abound. Undoubtedly reforms are needed, and indeed Guy's has been accused of "die-hard" tendencies in this respect; but it is a primary duty to hold fast that which is good. There is very much that is good in our past; and even our present regime might be worse, according to Professor Adami, herein quoted.

For present purposes it is unnecessary to refer in detail to the further wealth of articles that represent the various interests and activities of the Hospital. They must be read to be appreciated. No higher praise can be given than to attest that all are worthy of their several subjects. Particular mention should be made of the following:—

"The History of Dental Surgery at Guy's," by F. J. Pearce;

"The History of Guy's Hospital Gazette," by L. G. Housden;

"The History of the Physical Society," by J. M. H. Campbell; "Nurses and the Development of Nursing at Guy's Hospital, 1725-1925," by Miss F. A. Sheldon;

And "The History of the Rugby Football Club," by A. Allport.

Dr. Allport's contribution is certainly one of the most attractive of the whole series, and the gratitude of all Guy's men is due to him for so excellent an account of what is probably their proudest institution.

The happy inclusion of those seven prominent Guy's men, whom we regard with admiration and affection, has considerably added to the charm of the volume; would there were space for souvenirs of all the good fellows it has been our luck to meet at Guy's.

It is perhaps a matter for regret that no reference has been made to that little annexe of the Hospital in Great Maze Pond where so many leisure hours have been profitably spent and where so many great conceptions have originated.

The whole of this Bicentenary Number reflects the restraint and unaffected sportsmanship that characterise the spirit of Guy's in general. We have no use for pedestals; possibly we do not feel their need! Sensational journalism, mushrooms, and sky-signs all have their points; but life is really longer than many would have us believe. Admittedly our apparent modesty may represent that certain consciousness of super-excellence which requires no advertisement, that typically English quality which infuriates the foreigner. It is a good fault; but there are bills to be paid, and the general public lacks discernment. If Guy's and the voluntary hospital system are worth supporting—and, in spite of facts, figures, and their obvious faults, we *know* they are essential—then must we adopt for a space the methods of the Showman, and boost our wares. It isn't our fault; the Dean and Chapter of St. Paul's have had to do it, a most respectable body. It is at least satisfactory to realise that our urgent want is merely superstructure; the surveyors have reported foundations sound as a rock. Thank God we don't need grouting!

Medicine.

An Introduction to Forensic Medicine. By H. A. BURRIDGE, M.A., M.B.(Dub.). Pp. xiv. + 455. Publishers, Messrs. H. K. Lewis & Co., Ltd., London. *Price* 10*s.* 6*d. net.*

WRITTEN for Medical Students and Practitioners, this book is the very successful result of an attempt to put before the reader the essential facts of the study of Forensic Medicine in a form, so interesting, that they will be retained in the memory with the minimum amount of trouble. It is neither a cram book nor a treatise provided for those who are seeking "Honours," but a straightforward introduction to the subject. The text never becomes tedious, some story from the Law or Criminal Courts always being given when the subject under discussion requires illustration, and even the question of certification in cases of lunacy is rendered interesting. It is a book that contains all that is essential for candidates of the ordinary pass examinations and for practitioners, and that all can be read with pleasure.

The Medical Year Book and Classified Directory, 1925. Edited by CHARLES R. HEWITT. 2nd Annual Issue. Publishers, Messrs. William Heinemann (Medical Books), Ltd., London. *Price* 12*s.* 6*d. net.*

THE "Medical Year Book," of which this is the second annual issue, is an unofficial publication, produced with the object of providing a handy volume, conveniently arranged and classified, and intended to serve as a guide to the current activities of the Profession in the United Kingdom. Its scope is wide, and the large amount of information that has been collected by the Editor makes it of importance as well as of interest to all members of the Medical Profession. All of the information, to which one so often requires to refer and which is

usually scattered throughout innumerable lists, calendars and prospectuses, is here to be found in one handy volume, and a matter is easily looked up, whether it be the Regulations and Rules for Diplomas or Degrees in Public Health, the names of London Specialists and Consultants, the Nobel Prize awards, or the Cremation Statistics. Some of the more important additions to this second issue are: The Post-graduate Teaching and Facilities in Great Britain; the London Poor Law Hospitals and Infirmaries; the London County Council, Public Health Department; List of the Medical Officers of Health in the Provinces, Wales, and Scotland; List of the Coroners; the Voluntary Hospitals Commission, with Lists of Hospital Funds, etc.; and the Medical Benevolent Societies in London and the Provinces.

The facts are in the main quite accurate, though the names of several men appear in various places, those men being unhappily dead. But the lists of this volume are compiled from official lists and prospectuses, which are of course not the lists for the present year. This method of compilation brings about at least one curious misconception, in that any general practitioners, who are on the staffs of London hospitals, however small, appear as London Specialists or Consultants. Thus there are given the names of 157 Consultants and Specialists in children's diseases, and we believe that their inclusion under this heading would greatly astonish some of the practitioners so named.

On the whole the book will be found extremely useful and should command a wide sale.

General.

The Origin and Evolution of Religion. By ALBERT CHURCHWARD, M.D., M.R.C.P., etc. Publishers, George Allen & Unwin, Ltd. *Price* 42*s*.

IT is sometimes very difficult to follow the main trend of thought in Dr. Churchward's book: nor is the task made easier by the immense number of signs and symbols which he introduces, the interpretation of which must seem, in the lay mind, to be of much less certainty than he would have us believe. One would imagine, after reading his book, that every chalk sign made by the Maze Pond Kiddies on the walls of the college was of immense import and significance.

Moreover his main point is obscure: in the conclusion he allows that Christianity is the highest point in Religion to which man has yet attained, and will be the starting-point for some truer re-union of man with God, which is yet to come. Yet all through the main body of the book he seems to be pointing back to some primitive pure knowledge and worship of the Great Spirit, expressed in terms of astral phenomena, which has been steadily more and more corrupted, till it reaches its most degraded form in the "Christ-myth."

Most of the authorities on Comparative Religion seem to take some such view. Starting from primitive rites and working forward thence, they find remarkably close parallels in many points of Jewish and Christian belief and worship. What they do not point out is that the primitive rites, which they assume to be physiological and "natural," are normally associated with much that is beastly and pathological, in practise: whereas both Judaism and Christianity have always laid great stress on a right, physiological, moral code, whether they have stressed ritual and ceremony, or not. The close parallels, which they point to, between pagan and Christian rites, may be surely looked at in another way: for example, they quote Horus, the Egyptian god, with his Virgin-Birth, his Crucifixion and Resurrection, as an age-old star-myth, of which Christian beliefs are the ultimate corruption: is it not possible that those early beliefs were really a kind of prophecy—the "wise men" who saw what must happen—but that it took many hundreds of years, and 1,000 years of training of the Jewish nation to keep clear of all pathological rites and customs of the nations around them, nations who believed the religions springing from these prophecies but had not yet developed the necessary moral stamina—before "the Word was made flesh"?

The book would be much improved by some references, however short, to authorities: it is sometimes very difficult to know what is fact and what is the author's own theory. Moreover, it is hard to put complete faith in a book which only mentions Sir James Frazer's "Golden Bough" once, and then only to disparage it. But it is well illustrated: and his tracing of the development of a stellar cult, starting on the south side of the Equator, moving north into Egypt, and thence spreading to nearly every portion of the globe, is extremely interesting, if not entirely convincing. According to our Author, nearly all old legends, e.g., that of the Flood, are derived, ultimately, from some phenomena of the stars, told in an anthropomorpic fashion. Solar and Lunar cults were of later origin, and often were offered to the pre-existing Stellar cults—he says that the Solar Cult Druids, in establishing themselves in these Islands, had to drive out a pre-existing long-established Stellar Cult. It is interesting to note, though, that he states most emphatically that neither stars, moon or sun were ever actually worshipped, but only taken as symbols of the Great Spirit which is behind all. (This is difficult to reconcile, by the way, with his view, in Chapter I, that "if there had been no ghosts there would never have been any religion," thus basing religion solely on the inherent belief in life after death.)

The conclusion of the book is, however, indeed full of hope for the future: and it is good to see an old Guy's man applying whole-heartedly the scientific method in the use of true Religion.

Nursing.

A Handbook for Queen's Nurses. By SOME QUEEN'S SUPERINTENDENTS. Publishers, The Scientific Press, Ltd., London. *Price* 1*s*. 6*d*.

THIS book explains the history and development of district nursing, and the general outline and routine of the nurses's work. District work necessarily differs very much from hospital routine, so that a beginner might find herself in many fresh difficulties. In this handbook she will find full details and instructions for all sorts of occasions.

Sidelights from the New Psychology. By EVELYN SAYWELL, L.R.C.P., L.R.C.S. Publishers, The Scientific Press, Ltd., London. *Price* 3*s*. *net*.

EVERY nurse who desires to be an artist, and not a mere artisan, knows that she must treat the patient himself rather than his malady; and to do this, a study of psychology is as essential as physi-

ology. Mrs. Saywell, in her book, explains the first principles of the study of the mind, and the interaction of mind and body.

The book is short, and within the scope of the most busy, and will be found invaluable by all those whether professional or amateur, whose lot it is to nurse the sick.

Midwifery.

Midwifery Mechanics. By Lt.-Col. ANDREW BUCHANAN, I.M.S., M.A., M.D., M.Ch., M.H.O. Publishers, The Oxford Medical Publications. *Price 7s. 6d. net.*

THIS small book—in a few brief notes—attempts to revolutionise the present day teaching of Midwifery Mechanics, and to introduce new terms into a subject already bristling with terminology. As the author points out in his introductory preface, to understand the book, models are essential, and as the book is perused this fact becomes increasingly evident.

To one, whose aim in life is the teaching of midwifery and its complexities, assistance may be obtained from the book which might help to elucidate the complicated problems presented by abnormalities of parturition, but from the beginner's view point—whose sole teaching at present is that supplied by the various Medical Schools—this addition to the literature on the subject tends to be confusing. One has continually to turn back to see the diagrams referred to, and in several places the author states "This part of the subject will be discussed more fully later," but does not indicate in which part of the book to search for the further information.

In the models the soft parts of the birth canal are entirely disregarded, and from a study of the subject, the pelvic floor undoubtedly plays a very real and important part in the production of internal rotation, whereas on p. 35 of this publication these words are found: "Some say that long rotation is due to the resistance of the pelvic floor, a nice handy phrase for an examination paper, but it conveys as much, or rather as little, information as if we were told that this rotation is due to the man in the moon"—which, in view of the present teaching, is a sweeping statement, and difficult of acceptance.

A student would be ill-advised to purchase the book unless he is prepared to manufacture the models and to spend many hours convincing himself that he can obtain a better grasp of the subject by this means than with the aid of the recognised text books, and the models of the female pelvis, and of the infant now employed.

Sport.

Rugby.

Guy's v. Birkenhead Park.

BIRKENHEAD Park, led by W. H. Taylor the old Guy's forward, duly appeared at Honor Oak Park on Saturday, January 17th, and greatly was the game enjoyed both by spectator and player. It was a beautiful day, in perfect contrast to the year before when the atrocious conditions compelled an abandonment of the game soon after half-time. We won by 10 points to 3, made up of 1 dropped goal and 2 tries to 1 try.

Just at first our fellows got the ball with regularity, and passing waxed fast and furious, yet the centres of Birkenhead Park, F. C. Edington and R. Stapleton, managed to defend with such thoroughness that we could not get through. Very carefully did one watch for the reason and methinks it was due entirely to the slowness with which the ball reaches Preen and that player was patchy. Streaks of brilliance and then getting rid of the ball without an attempt to make a path for those behind him. Van Schalkwijk was in brilliant form, a clearance by him after Graham-Davies had handled was almost successful, but his pass to Clark was not good. A long throw to Fellowes-Smith was forward, and then the centres made another dash which enabled the wingman to go over in the corner. Little time elapsed before we got penned in our own "25" and swift and accurate passing by all the visiting three's saw Neale go over in the corner. For a time the Park had the better of the argument, then our defence was put to it, but the tackling was good and hearty on both sides, so that half-time saw the scores level.

In the second half Graham-Davies gained a very nice try. Hutchinson was unable to convert and nothing more was added till just about ten minutes before the end of the game when Fellowes-Smith dropped a goal. This made up our total of 10 points. One must congratulate the Referee, Mr. C. L. Steyn, on his management of the game. If this famous player should give up the game, he might quite well take up the whistle as a means of exercise. There is no doubt of his ability to keep up with the ball, the only difficulty seemed to me was sometimes he appeared scarcely able to restrain himself from taking part in the passing.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen; J.

Durr, E. E. Neser, N. M. Holloway, W. M. Myburgh, E. W. Hutchinson., J. W. Schabort, J. Popplewell, De Wet Vorster.

Next Thursday we meet Bart.'s (the Holders) in the first round of the Cup Tie. It was very bad luck we had no match last Saturday, but Gloucester, suffering from the shock of Bayliss' death, could not naturally be expected to play. A fine match and a good hard one was lost to us. Our greatest hope is that each member of the XV. will be in tip top fettle on February 5th. It's that last polish does it. The team that lasts the best invariably wins. Let the motto be "attack" and the way to the line, the shortest and straightest. Go for the goal line not the touch line, and when near the former go for it like —, will the reader please fill in the word. Don't gather the ball and look for help, the looking loses time and tries, but go for that line whenever within possible striking distance. The forwards will do well in the loose, they have come on tremendously. Heel the ball out of the back row quicker. Give your threequarters all the opportunities you can and with a fine day and a dry ball, the very utmost will be done to overcome the Champions of last season.

Guy's Hospital Sailing Club.

DURING the last year much interest has been taken in the doings of the United Hospitals Sailing Club, and that interest has not diminished with the news that two 14-feet dinghies are already built and will come into our possession as soon as the days are long enough for sailing.

We therefore called a general meeting on January 16th and decided to form a Guy's Hospital Sailing Club, to be affiliated to the United Hospitals Sailing Club. At this meeting Dr. French kindly took the chair. The constitution of the club gave rise to some discussion, but once that had been settled, the following officers were unanimously elected:

Commodore: H. French, M.D.

Vice-Commodores: C. P. Symonds, M.D., F. N. Doubleday, L.D.S., and A. Stokes, M.D.

Hon. Secretary and Treasurer: E. H. Roche.

Committee: C. F. Morrison, G. Landon, L. P. Tupling, H. Girling, D. C. M. Ettles, and E. T. Clifton.

The following rules were thereupon proposed by Mr. C. F. Morrison, and after brief discussion, were carried unanimously.

1. Name.—The name of the Club shall be "The Guy's Hospital Sailing Club."

2. Admission of Members.—(i) Any member of the Clubs' Union shall be eligible for membership. (ii) Any member of the Clubs' Union who gives his name to the Hon. Secretary, together with his first year's subscription, and undertakes to comply with the rules shall become a member of the Sailing Club.

3. Affiliation.—The Guy's Hospital Sailing Club shall be affiliated to, and its members shall be bound by the rules of the United Hospitals Sailing Club.

4. Annual General Meeting.—The Annual General Meeting shall be held in January. The Hon. Secretary shall give seven clear days' notice before the meeting, together with a notice of the business to be discussed.

5. General Meetings.—The Committee may call a General Meeting at any time, seven clear days' notice being given, together with a notice of the business to be discussed.

6. Flag Officers.—The Flag Officers of the Club shall be a Commodore, and as many Vice-Commodores as the Club may from time to time elect.

7. Committee.—The Committee shall consist of the Flag Officers, an Hon. Secretary (who shall also be the representative to the United Sailing Club), and six other members.

8. Election of Committee.—The members of the Committee shall be elected at the Annual General Meeting.

9. Powers of the Committee.—The Committee shall manage the business of the Club according to these rules.

10. Meetings of the Committee.—(i) Committee meetings may be called by a Flag Officer, the Hon. Secretary, or any two members of the Committee. (ii) A quorum shall consist of at least three members.

11. Amendment of Rules.—These rules may be altered, added to, or subtracted from as occasion may demand, at any general meeting.

Dr. French then wished the Club every success in the coming year. He knew of no finer or more exhilarating sport than sailing, especially on the East Coast, where stiff winds and choppy seas give the yachtsman always something to contend with.

The meeting then closed with a hearty vote of thanks to Dr. French for his kindness in taking the chair.

United Hospitals Hare & Hounds.

GUY'S SECTION.

IT is now only some seven weeks before the Kent-Hughes Cup Race, and in view of the fact that we particularly want to win this year to make five successive victories, the following are asked to to do their utmost to get fit :—M. E. M. Jago, G. W. Rake, L. K. Wills, J. H. Chitty, J. G. S. Thomas, J. M. Calhaem, W. D. Jones, G. R. S. Stewart, J. D. S. Thomas, and D. C. Drake.

THE second Club Handicap of the season was held over a seven and a half mile course at West Wickham, on Wednesday, January 21st.

W. W. Darley, running from scratch, was in splendid form, and ran right through the field to win a great race from L. K. Wills by a few yards.

H. N. Walker (Hon. Secretary) judged the race and laid the trail ; three or four other members ran over the five-miles course.

	Hand.	Time. Mns.	Scs.	Hand.	Actual Time. Mns.	Scs.
1 W. W. Darley (St. Bart.'s)		54	30	Scr	46	30
2 L. K. Wills (Guy's)		54	35	3 mins.	49	35
3 J. E. Snow (St. Bart.') ...		56	35	8 „	56	35
4 M. E. M. Jago (Guy's) ...		57	12	Scr.	49	12
5 O. H. Betterby (St. Bart.'s)		57	20	6 mins.	55	20
6 M. D. Young (St. Bart.s)		58	50	8 „	58	50
7 L. Pitt-Payne (Guy's) ...		61	20	8 „	61	20

Hospital Information, etc.

Guy's Hospital Dental School.

Dental Travelling Scholarship.

THE Dental Travelling Scholarship which, prior to 1914, was awarded by the Treasurer, upon the recommendation of the Dental Council, every other year, has now been re-instituted, and the first post-War Award will be made in July next. The conditions attached to the Award are as follows :—

1. Candidates must be registered Licentiates in Dental Surgery of the Royal College of Surgeons of England or holders of a Dental degree of a British University, who have been educated at Guy's Hospital Dental School.
2. The Scholar will be required, within the twelve months succeeding his appointment, to take out a course of at least six months' practical work at one or more Colonial or Foreign Dental Schools or Colleges previously approved by the Dental Council.
3. The Scholar will be required to present to the Dental Council a report of the work which he has done during the period of his Scholarship and a certificate from the Dean or other responsible official of the School or Schools to which he has been attached, giving details of such work done, and the time occupied thereon.
4. The total value of the Scholarship will be £250, of which, unless otherwise ordered, £150 will be awarded upon the appointment of the Scholar and the remainder upon the completion of the Scholarship and the appproval of the Report by the Dental Council.
5. The Scholar will be required, if desired by the Council, to act as a Staff or Extra Demonstrator of Practical Dentistry during the Academical year following his residence abroad.

Applications should be sent in to the Treasurer, Guy's Hospital, London, S.E.1, not later than July 1st, 1925.

T. B. JOHNSTON (Dean).

Notices.

ON Friday, March 13th, at 5 o'clock, a clinical meeting will be held in the Out-Patient Department, by the Section of Ophthalmology, Royal Society of Medicine.

Stock Exchange Male Voice Choir.

On Tuesday, February 24th, at 8.15 p.m., the Stock Exchange Male Voice Choir, assisted by Miss Phyllis Lett, Mr. Edward Halland and Miss Harriet Cohen, will give their second annual Evening Concert in aid of the Royal Medical Benevolent Fund Guild.

Tickets : 10s. 6d., 7s. 6d. and 5s. (unreserved 2s. 6d.) from Box Office, Wigmore Hall ; Lady Fox-Symons, 5, Courtfield Road, S.W.7 ; Mrs. Cecil Graham, 17, Upper Wimpole Street, W.1 ; Mrs. Moreland McCrea, 20, Devonshire Place, W.1 ; Mrs. J. B. Mennell, 1, Royal Crescent, W.2 ; Mrs. Henry Menzies, 11, Hobart Place, S.W.1 ; The Lady Riddell, 20, Queen Anne's Gate, S.W. ; Lady Rigby, 24, Queen Anne Street, W.1 ; Miss M. Ellis Rowell, 49, Beaumont Street, W.1 ; Mrs. Percy Sargent, 20, Harley Street, W.1 ; Lady Wallace, 26, Upper Wimpole Street, W.1 ; Mr. C. F. Hipwell, No. 9 Stand, Stock Exchange, E.C.2 ; or the Hon. Organiser, Mr. C. Godwin, 10, Drapers Gardens, E.C.2.

This entertainment, which will be given in the Wigmore Hall, is as worthy of support as it will be enjoyable, and we hope that all those, who are not otherwise engaged, will make a point of supporting the benevolent efforts of this excellent choir.

Specialities.

"Liquid Peptone."

Messrs. BRAND & CO., LTD., Mayfair Works, Vauxhall, London, S.W.8.

THE purity and excellence of Messrs. Brand & Co.'s foods and essences are well known, and we have pleasure in drawing the attention of all our readers to yet another of their Specialities.

"Brand's Liquid Peptone" is made of the best English beef, pre-digested by pepsin, with the addition of pure Barley Malt and some good sherry.

It can be given with safety after dangerous operations, providing as it does a sustaining and stimulating food, without the fear of harmful results or vomiting.

It is valuable also in cases of extreme exhaustion, loss of blood, etc., as it provides the maximum amount of nourishment with the minimum expenditure of energy in the process of assimilation.

It can be retained in many cases where the stomach refuses all other food.

Further particulars will be sent to Medical Men on application to the above address.

"Cereal Meal."

Messrs. S. GUITERMAN & CO., LTD., 35 and 36, Aldermanbury, E.C.2.

AFTER test it has been found that "Cereal Meal" is of great value in the treatment of Constipation. It is a preparation of American origin, and has been tried in that country with great success.

It is also an excellent and palatable health food, simple to cook. The ingredients are carefully selected and combined together, and when "Cereal Meal" is daily used, the result is a natural desire for evacuation, and a gradual return to normal physiological function.

Its use at breakfast daily, or in stubborn cases twice daily, viz., morning and night, is advised.

In treatment of Nursing Mothers, where a drug is likely to affect the child, or in post-operation cases, where the straining at stool must be avoided, "Cereal Meal" is excellent.

It can be obtained at most of the better class Drug and Grocery Stores.

Messrs. S. Guiterman & Co., Ltd., will be pleased to sent further particulars to Medical Men on application to the above address.

Papers by Guy's Men.

V. E. Lloyd, M.B., B.S., M.R.C.S. Diagnosis and Treatment of Chronic Gonorrhœal Prostatitis.—*The Journal of Clinical Research,* Vol. xi., No. 1, January, 1925, p. 9.

Arthur F. Hurst, M.D., F.R.C.P. An address on the Sphincters of the Alimentary Canal and their Clinical Significance.—*B.M.J.*, 1925, i., p. 145.

F. J. Steward, M.S., F.R.C.S. Cancer of the Breast: Recurrence Thirty-one years after operation. —*Ibid.*, p. 156.

Appointments.

F. W. Crook, M.R.C.S., L.D.S.E., Hon. Dental Surgeon to Free Eye Hospital, Southampton.

V. E. Lloyd, M.B., B.S., M.R.C.S., to the Council of the Medical Society for the Study of Venereal Diseases.

Change of Address.

R. Sydney Harper, 36, First Avenue, Hove, Sussex.

H. B. Bolus, M.A., M.D., 61, Burton Court, S.W.3.

C. de A. Birch, 36, Claremont Road, Surbiton, Surrey. 'Phone: Kingston 3677.

O. Gayer Morgan, 24, Harley Street, W.1.

V. R. Roberts, L.D.S., "Normanton," 72, Elm Grove, Southsea.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Birth.

ATKINSON.—On Saturday, January 10th, 1925, to the wife of Cecil Atkinson, M.R.C.S., L.R.C.P., a daughter.

Marriage.

BIRCH—ELLIOTT.—On January 21st, 1925, at St. John's Church, Cambridge, by the Rev. A. Malley, assisted by the Rev. Dr. Astley, Cyril Charles de Albuquerque Birch to Florence, only daughter of Mr. and Mrs. C. J. Elliott, of Cambridge.

Deaths.

ABBOTT.—On the 12th January, 1925, George Abbott, M.R.C.S., L.R.C.P., F.G.S., at Tunbridge Wells.

ALLPORT.—On the 17th January, 1925, Mary Elizabeth, widow of Franklin Thomas Allport, for many years resident at Sutton, Surrey, aged 95. This intimation to many old Guy's friends by her devoted son, Alfred Allport.

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

ROMANCE! what fond imaginations are aroused by that discordant word and with what a wealth of sentiment it is associated. What is there, that is worth while, that is not included in this name, that epitomizes the whole series of virtues into a radiant glow of beauty. It lures us into the past, helps us to face to-day and beckons us onward to the adventurous future. To see the world through the rose-tinted glasses of romance is an enviable lot—but we have broken our spectacles.

To-day is the Saint's Day of the Romantic, the St. Valentine's Day of the Calendar. We would have had our voice ringing out some amorous rustic ballad, across the crisp, fresh February air of the Borough, as we hastened with our flowed-bedecked valentine to her very window. We would have exchanged light-hearted banter with the other bearers of true-lover's knots and clasped hands and lovesick rhymes, with whom the Park should have been crowded. Yet we do not.

Our spectacles are broken. Our throbbing, tortured sight tolerates them no longer, and a pile of blankets covers the shivering, aching limbs and back, that shrink in agony from an open window, lest it admit the crisp, fresh air. Nor can a joyous note force its way from our parched, rasping throat. Romance is dead. The spectacles are broken. The Editor has the influenza.

RATHER late, but very heartily, we offer the congratulations of the Hospital, of which he is the Senior Governor, to Sir Henry Cosmo Bonsor, on the honour of Baronetcy, that was conferred upon him last month. Guy's, which has so many reasons to remember Sir Henry's name with gratitude, rejoices at the news of this well-merited honour.

OUR congratulations are also offered to Sir Frederick Gowland Hopkins on his elevation to Knighthood. Sir Frederick, we remember with pride, edited the Guy's Hospital GAZETTE in 1894.

ON Tuesday, the 24th February, Miss Sybil Thorndike will give a special matinée of "The Hippolytus" of Euripides, at the Regent Theatre in aid of the Bicentenary Appeal. Miss Thorndike will herself act the part of "Phædra," which will ensure a large attendance of admirers of this wonderful artist, and it is to be hoped that as many as possible from Guy's will obtain seats so that, by our large representation in the "house," we may show how gratefully we appreciate her great kindness to the Hospital.

Obituary.

Dr. D. C. Trott.

[The following is a short extract from the "Royal Gazette and Colonist Daily," sent to us by a Guy's Nurse, working in the "King Edward VII. Memorial Hospital, Bermuda.]

EARLY on the morning of December 27th the whole community was profoundly moved when the news was circulated that Dr. Trott, a man truly beloved and admired by every man, woman and child in Bermuda, had passed away, having suffered a stroke in his sleep. There had been no intimation that Dr. Trott was in ill-health, indeed, he was present at the Princess Hotel the evening before on the occasion of the dance for the Princetonians, and it was remarked that he looked well and was in the best of spirits. He had also been at the Boxing Day races, being President of the Hunt Club and keenly interested in its welfare. The news of his death was therefore a terrible shock and his loss will be a severe one, not only to his immediate family and friends, but to the public generally.

Dr. Trott was the son of the late Mr. and Mrs. Harley Trott of Smith's Parish. Born in 1858 he was educated here, at Dulwich and Cambridge, and then proceeded to Guy's Hospital, London, to finish his medical training.

After practising in Chicago for a time the call of Bermuda proved too great and he returned to his native country and devoted his life to its service. He leaves five children, Mrs. H. St. George Butterfield, Mrs. Harold Trimingham, Mr. Harley Trott, Mrs. Walter Wadson, and Miss Barbara Trott to whom the sympathy of all is extended in their terrible bereavement.

Perhaps his distinguishing characteristics were benevolence and modesty. No cause ever lacked his generous support and the number of his private benefactions will never be known. He "Did good by stealth and blushed to find it fame." His career in his profession was one long term of honourable service. With no thought of gain he rendered help cheerfully and willingly at all times, and his regard for his calling was an example to every professional man and an inspiration to the business man.

George Abbott.

GEORGE ABBOTT was born on March 25th, 1844, in Nottingham, and studied at Guy's from 1866 to 1869. He was a man who, in his day, was of considerable note among his fellow-students. The fact that he took no high grade, except in his own hospital, was due to the fact that his father neglected his early school education and, had it not been for the devotion of his mother, he would never have entered Guy's. He was an intensely hard worker and whatever he did, was done thoroughly. He gained both of the Treasurer's Gold Medals in 1869, a very unusual achievement in those days.

His life work was almost entirely devoted to certain sections of Geology and he searched all parts of the country for deposits, which he brought home to distribute amongst our museums, in some of which he founded collections, where none had previously existed. He also lectured on the subject at schools.

After a good and useful life of eighty-one years, he died on January 12th this year, and was buried at Tunbridge Wells.

Guys Hospital Chapel.

THE following have kindly promised to give addresses in Chapel at the Special Lent Services this year:—

Ash Wednesday, February 25—
The Right Rev. The Lord Bishop of Southwark.

Friday, March 6—
The Rev. W. G. Munk, Chaplain to the Sisters of Bethany.

Friday, March 13—
The Rev. B. F. Simpson, Rector of Stepney.

Friday, March 20—
The Rev. T. J. Hardy, Warden of St. Mary's House, Regents' Park.

Friday, March 27—
The Rev. N. C. Christopherson, Vicar of St. John, East Dulwich.

Friday, April 3—
The Rev. H. C. Frith, Vicar of St. Peter, Streatham.

All services are at 8.15 p.m.

Guy's Hospital Bicentenary Appeal.

The Disguysed Minstrels.

ATTENTION is again drawn to the splendid activities of the Disguysed Minstrels. Since the last number of the GAZETTE they have given an excellent performance at Watford. The total proceeds from this performance amounted to £59 2s. 5d., and for this most welcome result we are indebted to Mrs. Douglas Berry and Mrs. Gynn Hall. The arrangements were perfect in every detail and the hall was absolutely full. Only those who have actually organised such concerts and been responsible for sale of tickets can realise the amount of work Mrs. Berry and Mrs. Hall undertook and completed. We are anxious to convey to them our heartiest thanks and appreciation.

The Minstrels had a most enthusiastic reception and the evening was a thorough success from everyone's point of view.

FORTHCOMING EVENTS.

Dr. P. W. L. Camps has very kindly arranged a performance of the Minstrels at "Summerleigh," Hampton Road, Teddington "(by the courtesy of Madame Mottu) for Monday, February 16th, at 8 p.m. Tickets are five shillings each, and can be obtained from Dr. Camps, Old Udney Cottage, Kingston Lane, Teddington. It is earnestly hoped that all old Guy's men in that district will support this performance to their utmost and give Dr Camps all the help they can in the big task he has so graciously undertaken.

Dr. and Mrs. Poulton are very kindly arranging for a performance to be given at Woldingham on Monday, February 23rd. In view of the very splendid reception accorded to the Minstrels both at Croydon and Kenley we very much hope those living in that district will take this opportunity of seeing the Minstrels if they missed them before. Full details will be announced later.

A performance will be given at Chatham Town Hall on Thursday, February 26th. We are most grateful to Surgeon Rear-Admiral Beadnell for his excellent support on this occasion. He and Mrs. Beadnell are working hard to assure the success of the evening and the Minstrels will be most grateful to all old Guy's men and other friends of the Hospital if they will communicate with Admiral Beadnell should they be able to help in any way. His address is the Royal Naval Hospital, Chatham.

We are particularly pleased to announce that Vice-Admiral Sir William Goodenough, K.C.B., M.V.O., R.N., Commander-in-Chief the Nore; Major-General P. G. Grant, C.B., C.M.G., Commanding Chatham Area, His Worship the Mayor of Chatham (Alderman E. A. Billinghurst), have very kindly consented to be patrons.

Special Matinee of the Hippolytus.

Under the patronage of Her Majesty the Queen, Miss Sybil Thorndike is very kindly giving a special performance of the Hippolytus of Euripides, in aid of the Bicentenary Appeal. This will take place at the Regent Theatre (opposite St. Pancras and King's Cross Stations), on Tuesday, February 24th, at 2.45 p.m. Tickets can be obtained from the Theatre, prices from £2 2s. to 2s. 6d.

It is more than twenty years since the play has been produced, although it is looked upon as one of the best of Euripides works. Miss Sybil Thorndike will take the part of Phædra. The play is rehearsed by Mr. Lewis T. Casson, who also plays the part of the Messenger. Mr. Nicholas Hannen will play Hippolytus. The play is produced from the translation by Professor Gilbert Murray.

Many distinguished people have promised to be present and those who are anxious to come should book their seats early.

Dance at Hastings.

We are most grateful to Mr. H. A. Spouse, of Cambridge House, Hastings, for his kind suggestion of organising a dance on behalf of the Appeal. We recognise the amount of work this entails and whilst showing our appreciation to Mr. Spouse, we would also like to draw the attention of other old Guy's men in different parts of England of the great benefit the Hospital receives from such dances. The benefit is not confined to the actual amount of the proceeds, these necessarily vary and cannot be very large, but it does help to keep the Appeal alive, and to advertise our needs. We should be most grateful if any other doctors or friends of the Hospital would organise some such dances or other entertainment in their district.

Dental Notes.

Antiseptics.

A Paper read before the Dental Society by E. F. S. Dodd.

Mr. President and Gentlemen,

IN the composition of this paper, which I am reading you this evening, I have tried to confine myself to the more general points of interest with regard to antiseptics rather than to attempt to give you their exact detailed use. If I undertook the latter I am afraid it would take many papers to discuss the relative merits and demerits of the thousand-and-one antiseptic agents which are known and are in use at the present day.

The term "antiseptic" is rather vaguely used to designate some substance which is fatal to pathogenic organisms. On consideration, it will be seen that every chemical is properly an antiseptic because an organism is delicately organised to live in benign or malignant symbiosis with its host and *any* foreign substance inhibits or prevents its growth. A precise definition is difficult to arrive at; but I think we may state that an antiseptic is a chemical, natural or synthetic, product which kills, or is supposed to kill, germs quickly. An antiseptic prevents animal or vegetable matter from undergoing bacterial decomposition, and a body is loosely said to be aseptic when it is in a condition of sterility.

The use of antiseptics was known in very early times, for about 800 B.C. a volume in Sanskrit gives directions for sterilising foul water by means of hot copper. Ovid also mentions that sulphur was used by shepherds of his time for purifying the wool of their sheep from contagious diseases (Rideal).

The period 1862 to 1890—that is, from Pasteur upwards,—was marked by the publication of Lord Lister's work on "Listerism," antiseptic surgery, and also by the discovery of new pathogenic bacteria, as that of glanders in 1881; the cholera bacillus, by Koch, in 1883; diphtheria, pneumococcus and tetanus in 1884. With the discovery of these organisms semi-educated people "got wind up" and this so badly that a new disease came into being, called microphobia. This opportunity was too good to be missed, and it gave an enormous impetus to the manufacture of antiseptics, with the result that they were produced and on the slightest evidence said to be efficient. New antiseptics are being discovered every day. Only a few weeks ago an extraordinary complex tellurium compound of high germicidal value was announced by G. T. Morgan.

It is convenient to classify antiseptics under the headings of Inorganic compounds, Organic compounds, and Mixed Organic and Inorganic compounds. It is of interest to know that certain plants excrete juices which are powerful germicides, and there are a number of essential oils, such as the oils of cloves, thyme, camphor, menthol, turpentine and garlic, which doubtless exist in the plant for its protection against organisms. With the exception of, perhaps, oil of cloves, the essential oils do not enter into the field of the dental surgeon, though they are of some little importance in the manufacture of tooth powders and pastes.

The use of antiseptics by the dental surgeon may be classified under the following heads:—

(1) Routine use in the sterilisation of his instruments, hands, and surgery in order to prevent the transference of pathogenic organisms from one patient to another.

(2) What might be termed the highly specialised use of antiseptics in the filling of root canals, minor surgical operations and the treatment of oral sepsis, gum affections and the like.

(3) The routine use of antiseptics by the patients in the form of mouthwashes, tooth powders and the remedial measures to be taken with regard to combating gingivitis, ulcerative gums, and similar troubles. In these cases the patient is generally guided by the recommendation of his or her dentist.

Each of these offers a different aspect of the subject, and each of which is, in fact, a problem in itself. Below I have taken, for the sake of convenience, each aspect in turn.

Aspect 1.

As you all know, gentlemen, dentists and medical men are constantly being besieged by the representatives of various antiseptic and disinfectant manufacturers, each extolling the merits of their own particular product. It is, as I think you will agree, of the greatest im-

portance for the medical and dental man to be able to judge the truth of these claims, and to know the merits and demerits of the various types of antiseptics sold.

I mentioned a moment ago the boom in antiseptics which followed the discovery of various pathogenic organisms during the period from 1862 upwards. An enterprising firm of disinfectant manufacturers drew up a simple test, known as the Rideal-Walker test, to compare various disinfectants under given conditions against a particular organism. The organism chosen was B. typhosus, grown in artificial 10 per cent. lemco broth. This R.W. test merely measures the time and concentration necessary to kill or inhibit the growth of a 24 hour culture of the organism when grown in standard broth. As it was found that carbolic acid generally was able to prevent the growth of B. typhosus when used at a dilution of 1 in 100 in from 2·5 to 10 minutes this was taken as a standard. Lysol does the same work as carbolic at about the dilution of 1 in 200 to 1 in 300, and is accordingly said to have a R.W. co-efficient of 2 to 3.

This standard, so far as it goes, is very excellent, for no one depreciates the value of exact and precise experimentation. What, however, must be complained about is the manufacturer who has taken the R.W. co-efficient to mean that his product is so many times stronger than carbolic, leaving the public to make the inference that this applies under *practical conditions of disinfection*. For instance, some makes of Lysol now on the market only work when diluted with distilled water; for, if made up in hard tap water, the contained cresol is precipitated and the germicidal power is reduced. The British Admiralty are well aware of this fact, and one of the contract requirements for the supply of disinfectants to the Navy is that the water used for diluting the disinfectants shall contain 32 gms. of sea salt per litre, and that on standing for 20 hours the disinfectant shall not be precipitated.

The absurdness of the R.W. co-efficient is not in the actual test itself, but in the way it is "boosted." It is absurd to suppose that because B. typhosus can be destroyed when in broth, and in an attenuated form by an antiseptic in pure water, that the same result happens when the organism is in its natural habitat surrounded by physiological fluids—for instance, saliva, etc.

Theodore Rettie, D.Sc. (J.S.C.I., V. 37, January 31st, 1918) of the Medical Research Committee in the Pathological Dept., Edin. University in 1918, experimented with organisms which were tested against infected tissue. It was shown that preparations similar to Lysol at a strength of 5 per cent. were ineffective as compared with carbolic at the same percentage strength. Yet, according to the R.W. co-efficient, Lysol is said to be from 2 to 3 times as strong as carbolic. It certainly is so in the case of pure cultures in artificial media, but not so under practical conditions. In a letter to the *Lancet* (August 4th, 1918), Culverwell and Graham Forbes record some interesting experiments they performed with a tooth brush which originally belonged to a certified case of diphtheria. The brush was received by them two weeks after the case had been removed to hospital, and was used to prepare a number of artificially infected toothbrushes. These were applied primarily to ascertain what dilutions and length of exposure were necessary to inhibit or destroy B. diphtheriæ on these artificially infected tooth brushes. " . . . under such conditions it would appear that immersion for one minute in a 5 per cent. solution of standard Lysol or for 5 minutes in a 2 per cent. solution is insufficient to kill the organism." I suppose that there is no antiseptic more generally used than Lysol both by medical men and dental surgeons; yet I am afraid there are on the market to-day many so-called Lysols which are to all intents and purposes worthless. Lysol to be of any use should contain 50 per cent cresols, but as there is no definite standard laid down by law, this percentage is not always adhered to by the unscrupulous manufacturer. Lysol is put on the market with 3 per cent. cresols against the usual 50 per cent content, so that the liquid may be sold by grocers and oilmen. I think the average practitioner would know better than to purchase his Lysol at a grocers, but I mention the fact to bring to your notice the strange state of affairs which exists at the present moment. Various tests have been devised to get over the difficulty. The suggestions that the addition of fæces or the use of more resistent organisms be used in testing the co-efficient of disinfectants is never likely to gain favour with manufacturers because it means that their products will give

poorer results. Of course, there is a remedy in having a control over these matters such as the British Medical Association or a Board of Control formed by the Government.

The effective sterilisation of the hands of the operator still seems to be an open question. It is of no little importance for it is an easy matter to infect one patient from another by the want of sufficient care in the cleansing of the hands. S. and E. Rideal, in their book on Chemical Sterilisation and Disinfection, go into the question, and some of their points I will mention briefly here. "The use of mercuric chloride (1 in 1000 solution) is in common use, and is sometimes used as a standard for comparisons. The points limiting its use for special purposes are its poisonous effects on higher animals, and its precipitation by so large a number of substances such as hard water, alkalies, organic bodies and numerous salts, causing its action to be liable to great variations. Sodium chloride is sometimes added to increase its stability, but considerably diminishes its germicidal power. It has, also, the added disadvantage of being irritating to some skins. Mercuric iodide dissolved in potassium iodide is a powerful germicide, and has less irritant action on the skin than the chloride. Sublamin (mercuric ethylenediamine sulphate) 43 per cent. mercury—an organic mercuric salt, is readily soluble in water, does not precipitate soap, and is a valuable hand disinfectant."

Prof. Murkuliez finds from a series of practical tests that it is impossible to render the hands perfectly sterile, but in spite of this dictum I think that the routine soaking and washing of the hands is to be encouraged, as it, at least, must keep the number of organisms down and render the chance of contagion less possible. The use of alcohol has been recommended, for not only does it harden the epidermis, but also it is an active antiseptic. The chief objection to its use is, however, its high price. R. E. Weir (*New York Med. Rec.*, April 3rd, 1897) recommends washing the hands with a piece of washing soda about 1 inch wide and with a good pinch of chloride of lime.

The methods of sterilising instruments used by the dental surgeon fall under two classes—(a) by means of chemical agents, and (b) by the use of some sort of wet or dry heat.

It is now almost universally admitted that the only satisfactory method of sterilising instruments is by boiling for some period in water to which 1 per cent. of sodium carbonate had been added to prevent rusting of steel cutting instruments.

The most favourite chemical antiseptic agents used for instrument sterilisation are carbolic and the various Lysol liquids. These are quite efficient if a sufficiently strong solution is used, and an adequate period of soaking allowed for the liquid to peretrate every crevice in the instrument.

With regard to rubber tubing, the *British Journal of Dental Surgery* (1916) recommends the use of glycerol heated to 120°. The rubber is said to be rendered extremely supple and elastic by this treatment.

Herbert Smale and Carmalt Jones (*B.M.J.*, August, 1911) mention the use of 1 per cent. tricresol for the effective sterilisation of infected tooth brushes after two minutes immersion. I have not been able to discover whether tricresol has any detrimental effects on instruments, but should imagine this method to be quite effective. Lysol is said by some to blunt cutting edges.

Mr. J. B. Parfitt recommends that all instruments, after sterilisation by boiling, should be placed in a cabinet which is charged with formaldehyde gas and left until required for further use. The cabinet is provided with a quantity of paraform, which gradually evolves formaldehyde gas, and thus keeps the enclosed air in the cabinet up to a certain concentration.

The disinfection by means of antiseptics of the air, walls, and internal fittings of dental surgeries does not seem to have received very much attention. Of course, such sterilisation is not so necessary, as for instance, in the case of a doctor having a practice in a poor district, where, in the course of a day, he may have many million pathogenic organisms deposited in his waiting and consulting rooms. The chief volatile antiseptics used for this purpose are formaldehyde, sulphur dioxide, and more rarely chlorine and ozone. Formaldehyde seems to be the most successful of these agents. Rideal, using 1·5 ozs. of 40 per cent. formaldehyde and evaporating by means of a spirit lamp in a room of 1,548 cubic feet (about 11·5 ft. sq.) succeeded in obtaining good results. The air before disinfection contained 429 organisms for 10 litres, afterwards only 71. Many lamps for air sterilisation have been proposed upon the principle that formaldehyde

can be generated when the combustion of a mixture of methyl alcohol vapour and air takes place over red-hot platinum (Hoffman). Such lamps have been devised by, among others, Tollens, Robinson and Broche.

Conclusions.—The conclusions that we arrive at, therefore, in this aspect of our problem are as follows:—

An antiseptic for routine use should be—

(1) Cheap.
(2) Stable, i.e., should not decompose on standing.
(3) Non-poisonous.
(4) Useable with pus, mucous, blood, etc.

Coal tar preparations are stable and only slightly poisonous as compared with, say, $HgCl_2$. Many, however, contain carbolic and some will not stand the use of any but distilled water.

Formaldehyde is expensive but has a weak action at low temperatures. The inorganic salts are usually poisonous. The hypochlorites are powerful and should be fairly cheap to use. Their one disadvantage is that they tend to decompose with a loss of oxygen.

Obviously the better class coal tar disinfectants and the hypochlorites are preferable for general antiseptic purposes.

ASPECT 2.

In this aspect we come to the more scientific and detailed use of antiseptics, for under this head you will remember I have placed minor surgical operations in the mouth, the treatment of septic and devitalised teeth, and the various treatments for combating diseases of the gums and mucous membrane.

In this sphere of the subject it will be quite evident to you that the dental surgeon follows his teachers, and is more or less influenced by the methods in use at the school at which he trains. In the 1st and 2nd aspects (the latter I propose to deal with in a moment), he is more open to the considerations of economy, mass suggestions through advertisement, and the prejudices of his patients. But still, let it be remembered that the dentist has a vast field of valuable research at his disposal.

In the minor operations upon the mouth, technique should be carried to a high art, and no practitioner worthy of the name of Dental Surgeon, should have cases of suppuration, erysipilas, etc., owing to the neglect of the simple rules of asepsis. He is in almost a unique position, for operations in the mouth cannot be protected, as in the case of other parts of the body, by antiseptic covering dressings. An incision in the case of, say, an apicoectomy, the wound, even if it is packed with gauze, is being constantly bathed in saliva, which is, of course, the home of many potentially pathogenic organisms.

A very successful preparation for the packing of these wounds is iodoform in the form of gauze drain. This antiseptic is almost insoluble in water, and thus I should imagine it would not be washed out so easily by the saliva as some other antiseptics. One objection to its use is its smell, which may prove objectionable to the patient. I think this could be overcome by the addition of from one to two per cent. of any of the aromatic essential oils, such as eucalyptus, geranium, peppermint or rosemary. Iodoform powder mixed into a paste with cinnamon oil is also in use in the treatment of septic root canals.

Strong carbolic acid is used a great deal in the case of septic teeth. It must, however, come under suspicion as not by any means being the best antiseptic to use under these circumstances. In the important work which was carried out during the war by the Pathological Department of the University of Edinburgh, it is recorded that carbolic very soon produces necrosis of bone and symptoms of general poisoning (J.S.C.I., 31st January, 1918, p. 255).

Martindale and Westcott's Extra Pharmacopœia (1920 edit.), while giving credit for its virtues, draws attention to the fact that five per cent. compresses may cause coma, and in one exceptional case a 1 in 40 application in an operation for circumcision caused carboluria and death. Carbolic is very toxic, and there is a case on record last year of a man who was fatally poisoned by a bottle bursting in his side pocket and the liquid penetrating his skin. Perhaps I am digressing a little from my subject by drawing your attention to these facts regarding this antiseptic, but I do not think it is outside the bounds of possibility that an accident might conceivably happen to either the patient or the operator even in the best conducted practices.

In the treatment of septic pulps and root canals the use of many varied antiseptics have

been suggested. Tricresol, which is a purified mixture of o-, m-, and p- cresols, is soluble to the extent of 2·2 to 2·5 per cent. in water, and is said to have three times the germicidal power of Phenol. (Martindale and Westcott.)

It has been found by various workers that as one goes up the homologous series of the phenols they diminish in toxity (as found by animal inoculation) and very often increase in antiseptic power against lowly organisms. This is certainly the case in such substances as xylenol, thymol, carvacol, guaiacol, etc. They are still less poisonous than the cresols, and there is every reason to believe that they are more efficient for the purpose and less irritating. They all have a certain anæsthetic effect, and used raw there is not the slightest doubt of their antiseptic effect. Eugenol is the chief constituent found in oil of cloves, and is a powerful antiseptic. It may be used also for sensitive dentine, and for this purpose is generally mixed with a quantity of zinc oxide so as to make a thick paste for insertion into the tooth cavity.

Mr. Parfitt states in his excellent book on *Operative Dental Surgery* (p. 243, 1923 edit.) that " . . . in our present state of knowledge, we must confess that the treatment of septic dead teeth is more or less empirical. A tooth with healthy cementum and periodontal membrane, but with a completely dead pulp, is a problem in itself. It will be seen that any attempt to clean the pulp chamber and root canal of its septic contents by means of instruments may lead to the forcing of organisms through the apical foramen into the, so far, healthy tissues round the apex. It is now the custom to sterilize the septic pulp and contents of the root canal *in situ* before proceeding to remove the same. For this purpose an antiseptic must be chosen which shall have sufficient germicidal power, diffusibility and penetration to enable it to act on the entire contents of a long canal and with the absence of irritating action on the soft tissues beyond the foramen or foramena."

Formalin has been a widely used substance for this purpose, but it has the disadvantage that it must be used strong, and if in sufficient strength rapidly disappears from the root and causes irritation of the apical tissues. Paraform is an improvement on formalin. It is a solid polymer of the latter substance, and under certain temperatures gives off in time its own volume in formaldehyde gas. About half a grain mixed with a convenient liquid is placed in a soft metal cap over the exposed pulp. The cavity is then sealed with some water-tight material, and the dressing may be left in for a week or more, for it does not seem to have any irritant effects.

A class of antiseptics which came into prominence during the late war were the chloramines. Chloramine may be termed an organic hypochlorite which gives off chlorine on decomposition. Without going into a long chemical explanation it may be stated that the percentage of chlorine in a molecule of the substance is 12·6, but during its decomposition an equivalent amount of oxygen is given off. As this oxygen can be reckoned to play an equal part in imparting disinfectant properties to the medium, the "effective chlorine" may be estimated at 25·2 per cent. Its disinfectant power is said to be very great, and its germicidal properties can be gauged from the following. In 10 minutes the organisms named were killed in dilutions of chloramine as stated:

Streptococci	...	1 in	34,000
Diphtheria B.	...	1 in	30,000
Dysentery ...	...	1 in	22,000
Typhus ...	...	1 in	20,000
Coli	...	1 in	18,000
Staphylococci	...	1 in	16,000

Professor Loewe, after exhaustive tests, concluded that chloramine is non-toxic and has no irritant action on the mucous membrane, and could be applied to the most delicate parts of the body without any evil after effects whatever. This would probably be accounted for by the fact that chloramine is neutral in solution. The inorganic hypochlorites, on the other hand, are strongly alkaline in reaction (M. Briscoe, *Chemical Age*, 18th Aug., 1923).

Dr. Prinz recommends dichloramine-T dissolved in chlorcosane for the treatment of septic pulps, but alone the substance may be used for almost all antiseptic and disinfectant purposes.

The use of colloidal metals has been suggested for various diseases of the teeth and gums, but it would be imagined in the case of colloidal silver that after long contact with the tissues it would probably become metallic silver of macroscopic dimensions and become a source of irritation.

Aspect 3.

In the third and last aspect of our problem with regard to the use of antiseptics, we have

to consider the question of mouth-washes and such cleansing agents of the teeth and oral cavity as tooth-pastes, powders and liquids.

It is abundantly provable that antiseptics used in the mouth and tolerated by the mucous membrane are of no avail against organisms which are living buried in the epithelial tissue. Mere lavage is quite inadequate to remove any of the normal flora and fauna of the mouth. A. L. Bloomfield (*John Hopkins Hospital Bulletin,* July, 1922, p. 252) carried out a series of experiments with regard to the normal flora of the mouth and which flourishes in the buccal secretions. He attempted to cleanse mechanically the tongue by thorough washing with water, scrubbing and copious irrigation. This cleansing was carried out for 30 minutes, and failed to remove the normal bacterial inhabitants of the tongue, showing that such organisms are not growing free in the mouth but are intimately bound to the mucous membrane. These organisms could not be drawn out from the deeper cells of the mucous membrane by the application of strongly hypotonic solutions and the ice pack. The actual situation of the growth of the bacteria must therefore be in the crevices of the epithelium and in the gland orifices.

With this consideration in view, should the dentist tell his patient to wash his or her mouth with a disinfectant, and should he attempt to recommend an antiseptic for the elementary stages of gum diseases? Should he compel washing of dentures in antiseptics?

In spite of the above dictum with regard to the organisms in the mouth, I think the use of these measures should be insisted upon.

There is, firstly, the auto-suggestive effect on the patient. If told that he must wash out his mouth with a 1 per cent. solution of carbolic three times a day after an extraction he feels that he is helping the good work and will do it, whereas he might never think it worth while to wash out the socket with even common salt. The mechanical lavage at least helps to keep out food particles and debris from the socket.

Secondly, there is the possible chemotoxic action. Certain drugs have a stimulative effect on the mucous membrane, causing congestion of the blood corpuscles.

Thirdly, the water used in mouthwashes which have been treated with an antiseptic would be sterile. It was found, for instance, during the War that the addition of a very small quantity of chloride of lime was sufficient to sterilise water.

Fourthly, there is what may be termed the casual organisms of the mouth. In the case of disease there must be organisms which are foreign to the normal flora and are loose in the saliva besides those which are deep seated and at the root of the disease. Although it is stated that ordinary dilute solutions of antiseptics cannot kill organisms in their normal habitat, yet it must not be ignored that antiseptics must have a profound influence on these stray germs. There is, without doubt, a constant war being waged between the normal and foreign organisms and if antiseptics are likely to help this fight then they must be used. People whose mouths contain hosts of pathogenic organisms should be made to wash out their mouths with antiseptics, not so much on the principal that they themselves can be cured by this means, but as a measure of protection to other people. W. Strauss (Versuche über beim Sprechen Verschleudete Tröpfchem 1921) by means of exposed microscopic slides and culture plates, has made a study of the scattering of micro-organisms from the mouth during the act of speaking. Generally it was found that the dissemination did not take place further than 30 cm. Experiments were made with patients suffering with pyorrhœa alveolaris and diphtheria, in either the acute or carrier stage. Out of 8 diphtheria cases with marked tonsillar infection only 2 showed diphtheria droplets produced during loud speaking. In acute catarrhal conditions, however it was found that many infected droplets were expelled.

There has, quite lately, been a very strong controversy in the medical press with regard to the use of the tooth brush. Some authorities argue that the brush after being in use two or three times becomes a highly septic instrument, and its use is to be discouraged on these grounds. While to a certain extent this is correct, I think it will appear evident that the danger lies not in its use but in its abuse. The average person, after cleaning the teeth, simply rinse the brush in water and drops it into a rack or pot until required again, lulled into a sense of false security by the statement on the tube of the tooth paste which has been used, that it is antiseptic, and thus the brush and mouth must be antiseptic after its use. Of course, this is an absurd hypothesis, and protest must be made with regard to the in-

sistant advertisements by which these wares are sold. Some give R.W. co-efficients, which, although they impress the public, are of little significant value. As I have mentioned before, this co-efficient, although of value in the comparison of various antiseptics under similar conditions and against similar organisms, does not give any indication of the action of the antiseptic agent under practical conditions as, for example, in the mouth. Some advertisers state quite openly that their concoction is a cure for pyorrhœa. As we all know, there is a substance yet to be discovered which will cause a regrowth and replacement of peridontal membrane and bone of the alveolus after it has once been destroyed. The consequences of neglected pyorrhœa are so serious that the public, instead of being lulled into a sense of security by the advertisements, should be educated to visit the dentist who, if he cannot cure pyorrhœa, can at least hold it in check.

Though it may safely be said that from the antiseptic stand point the value of the tooth powders, etc., is nil, their use is not to be discouraged, for the mechanical cleansing and brushing of the teeth has the action of stimulating the flow of saliva and the solid constituents act as cleansing agents where food particles and stagnation areas are concerned.

Dentistry and General Health.

By Bocquet Bull, M.R.C,S., L.R.C.P., L D.S.

IN a recent article in the Gazette by Mr. Doswell Wallis on Dentistry and General Health, stress is laid, and rightly so, on preventive dentistry, such as instruction in oral hygiene, food requirements and mastication. This instruction is very necessary, as even in the best class of practice, patients are met who have but a very hazy notion as to the best methods of keeping the mouth and teeth in a clean condition. On this point all dental surgeons, and nearly all medical practitioners are fully agreed, and it is a sermon that has been preached over and over again. And the sermon has been productive of a certain amount of good, as can be seen when one looks at the ever-increasing number of School dental clinics, dental clinics attached to large factories, and other facilities for obtaining dental treatment which are in existence at the present time.

These have but touched the fringe of the nation, but doubtless more will be, and are being established, as occasion demands. And here we have the whole gist of the subject of preventive and other dentistry, in the words, "as occasion demands." Before ever the teeth of the nation are in anything like a passable condition it is essential that in some way or other the individual should be made to feel that it is as criminal an action to have, not only faulty teeth, but a faulty tooth in his or her mouth as it is to commit a felony. Once this idea can be inculcated into a majority of the numbers of the nation, then can it be felt that the great work of preventive dentistry is marching in full swing towards its goal.

How this propaganda can be accomplished, or even partly accomplished, baffles discernment. The dental surgeon can do but little, for the people that he sees professionally, are the very few that have realised sooner or later, and in the majority of cases later, that dental treatment is necessary, as teeth are constituted at the present time. One can argue that by preaching to these people, they in turn will spread this gospel to their friends. A most optimistic idea, and worthy of but little attention. The Press, in a sporadic kind of manner, now and again give a short account of Sir Somebody's lecture on the necessity of good teeth, and how to possess them, usually by feeding on a most objectionable diet; and 99 people out of every 100 say with one accord as they read the article that they would sooner have bad teeth and a less objectionable diet. The schools undoubtedly accomplish a deal of good, as in a large majority of them inspection and treatment is a routine thing. But an individual does not attend school for ever, and one can only think that, as soon as school is left, so is attention to the teeth.

To the mind of the writer there is one man who has more opportunity to do genuine good in this respect than anybody else, and that man is the family doctor. In most cases an individual is seen at birth, or shortly after by the medical practitioner, and the chances are that frequently during infancy, and more or less frequently in youth, middle and later life, he is consulted again for some ailment or other by the same individual. Indeed it is difficult to think that there are many of the population who have not had to consult a medical man, either on their own initiative or that of their parents, some few times before

many years of life have passed. If the gospel of sound teeth were rapped in with the driving force of a pneumatic concrete breaker (if this attempted simile be incorrect pardon the writer, but get hold of the idea) as it should be, and probably isn't, and not with the gentle touch of a finger upon a harp-string, as it should not be, but probably is, on every occasion that the practitioner obtained, at any rate the man with the largest amount of influence would be doing his best to obtain a nation with teeth that might be classed, in the language of the Great War, as A 1.

NOTICE.

THE 26th Annual Dinner of the Guy's Hospital Dental Society will be held on SATURDAY NEXT, February 21st, at the Trocadero Restaurant.

A distinguished company will be present, and those who have not already obtained tickets should hasten to communicate with the Secretary, H. E. Edney, from whom tickets may be obtained at the reduced rate.

As the date coincides with that of the last home match, versus Plymouth Albion, there will be ample entertainment in London throughout the day. A large crowd is expected from the West Country.

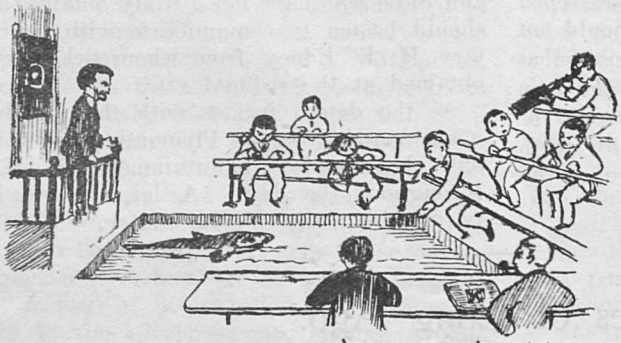
Tales of Long Ago.

IV. Amputation at the Hip Joint, January 16th, 1824.

(G.H.G., NOVEMBER 2ND, 1872.)

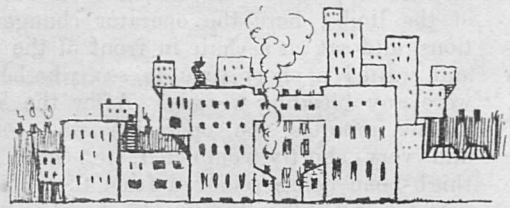
THIS formidable operation was performed here this morning, for the first time, by Sir Astley Cooper, in the presence of some of the surgeons and pupils belonging to these institutions. The number of those present, however, was not so great as on many other occasions, no previous notice of the operation having been given, and this arose in consequence of it not having been determined on but a few minutes before its performance. The patient was a man about forty years of age, whose thigh had been amputated some years ago, just below the knee, since that time the thigh bone had become diseased from the extremity of the stump, up to the trochanter major; and this disease has had such effect on him of late that he has been rapidly sinking under it; the thigh was of the middle size; on being asked this morning to submit to an operation, he readily consented. At half past one the patient was brought into the operating theatre, and placed in the recumbent posture on the table; the femoral artery being tightly compressed at the groin by an assistant (Mr. Key), Sir Astley, standing to the outer side, with the limb in the one hand, and the catlin in the other, commenced the operation, by making an incision just below Poupart's ligament, a little to the iliac side of the femoral artery; this was continued obliquely downwards and outwards to the back of the thigh, about one-third of the way down, from which point the knife was carried in the opposite direction, obliquely upwards and inwards to meet the first incision, by this means forming an eliptical curve. At this step of the operation, the femoral artery was divided, to which a ligature was immediately applied; the cellular membrane was merely cut through at first, but the knife was again carried in the same direction as defore, and thus the muscles were also separated; at this step also, it was necessary to apply another ligature on the inside of the limb; here the operator changed positions, and sat on a chair in front of the patient, and waited a short time to see whether there were any bleeding vessels. After the lapse of a few minutes the operation was continued and very shortly completed, the head of the thigh-bone being removed from the acetabulum without any difficulty; two ligatures in addition to those already used were applied, making in the whole four; the integuments were brought together, and a suture applied to the upper portion; strips of adhesive plaster, and lastly a bandage were put over the stump. There were about 12 ounces of blood lost, but it had the appearance of being venous. The limb was removed in the space of twenty minutes, the securing the arteries and dressing occupied fifteen more; the whole was completed in thirty-five minutes. During the operation the man was extremely faint, but some wine being given him, and fresh air being admitted, he recovered. The patient bore the operation with extraordinary fortitude, and after all was finished, he said to Sir Astley, "that it was the hardest day's work he had ever gone through," to which Sir Astley replied that it was almost the hardest he ever had.

THE ULTIMATE FATE OF CLASS ROOM TWO?

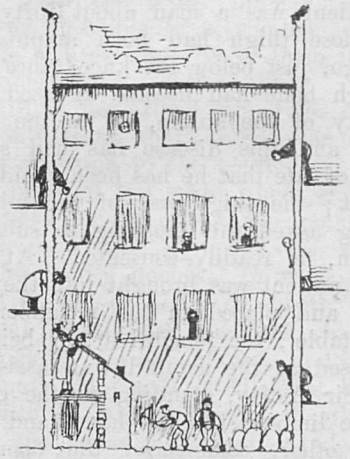


Is it destined for the study of the dogfish in its native element?....

— or, Has the Chemistry Department found an ideal home for its more violent lecturers?



If this persevering attempt to make use of odd corners continues---- Guy's of the future may look like this.



F.C.T. 1925

Meanwhile —

it is the only thing that can drag us from our crossword puzzles.

"The Curse."

[By our Dramatic Correspondent.]

WHATEVER may be the rights and wrongs of the bickerings at Drury Lane, it is evident that there is no trouble at present at the Physiological, and we can unreservedly applaud the harmonious co-operation of management, producer (D. J. P. O'Meara), cast and orchestra, which resulted in a successful Residents' Play.

Colonnade opinion had varied as to the precise significance of the title; there were even those who asserted it was merely a convenient rhyme with "Nurse"; but speculation was soon laid to rest in an admirably written and admirably spoken prologue which parodied "The Jackdaw of Rheims," and explained the genesis of the play.

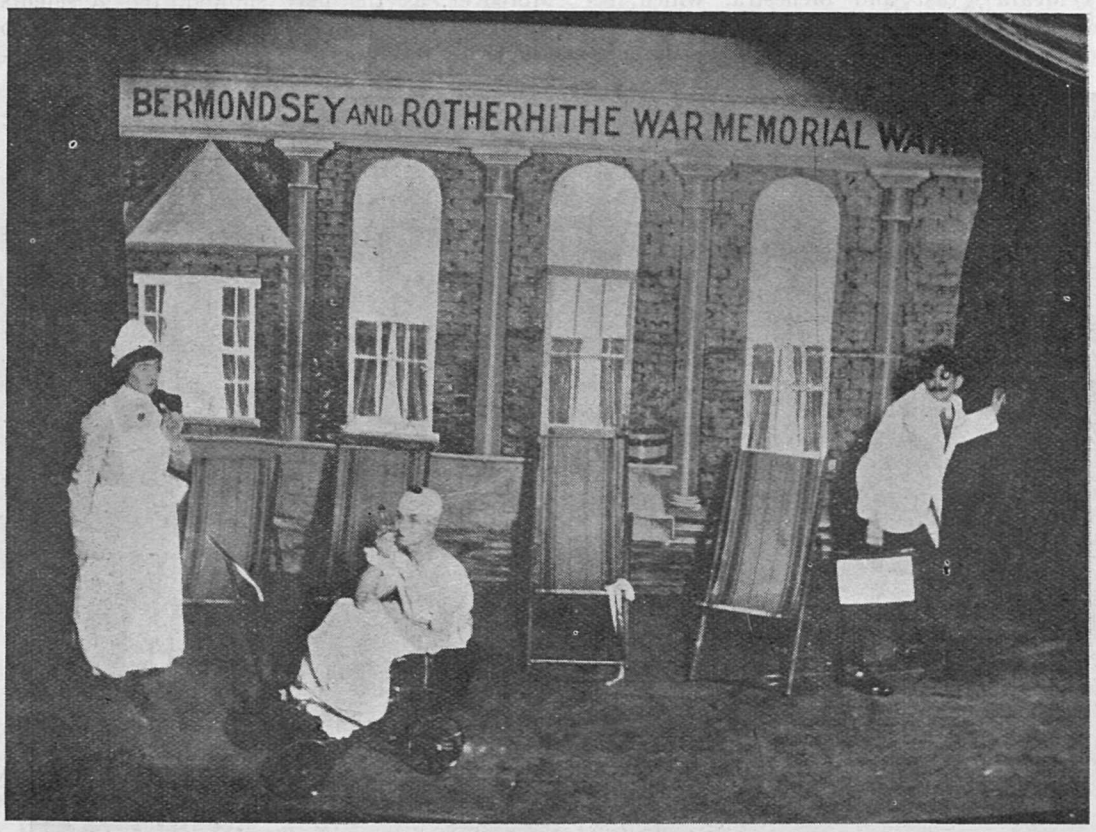
From this prologue it appeared that the Padre, in revenge for the scurvy treatment he had received in his impersonation by the President of the Residents last year, had put a curse on that officer, a curse which cruelly reversed the ideal of the Boy Scouts and condemned him to the commission of one bad deed a day. Moreover, as the play showed, the Residents had made the office of President perpetual, so Maurice Cowley (R. B. Fawkes), whose election had been faked by Clement Talbot (W. F. Payne) to avoid having to take the curse on himself, appeared old and haggard with the strain of thinking out and perpetrating a fresh daily crime for life:

Never was heard such a terrible curse;
It was worse than a Sister rebuking a Nurse.

THE BEAUTY CHORUS. *Photo. by G. A. Walker.*

The Prologue done, there was disclosed a "Speaking likeness" of the Bermondsey and Rotherhithe Memorial Ward, and Mr. Saltmarsh and the Works Department have again laid us under obligation for their willingness and skill. Topicality is, of course, almost everything in the Residents' Play and to this the scenery contributed as much as anything.

Six Staff Nurses, who combine the offices of "Matron's Private Detective Staff," and of "Permanent Bridesmaids" set the ball rolling:—



TO-DAY'S BAD DEED. *Photo. by G. A. Walker.*

Creeping hither, creeping thither,
Nobody knows why or whither,
We must watch each man and maid
Talking in the Colonnade.

Austin Severn, we learn, is engaged to Nurse Rosebud, the new Pro. in "Struth." He enters and is congratulated accordingly, only to deny the rumour with bitter allusion to the new rule which limits Junior Pros, to the Society of Ward Clerks. Never mind, says Staff Nurse Amelia in a Staff voice, "Love will find a way, if its only the Subway." Why not persuade a ward clerk to propose for him? And Severn goes off to Mr. Brassie's Outpatients to find Talbot of Sir Launcelot's firm and give him the job.

Nurse Rosebud (D. Vaughan) enters with a vigorous baby (G. C. Millis) in a pram from Struth and consults a green book "which Matron gave me—for three shillings." She regrets extremely the rule already referred to and expresses her regret with a feminine charm which must have brought many admirers round to the Stage-door afterwards!—

When I first put this uniform on,
I said as I looked in the glass,
It's a pound to a penny
You wouldn't find any
My figure and form to surpass;

For a Pro. has a charm for H.P.'s,
And she's always prepared for a squeeze,
Combining at leisure
Her business and pleasure—
Endeavouring always to please—
A fact that I counted upon
When I first put this uniform on.

I said, when I first put it on,
It is plain to the veriest dunce
That every student
Will feel that its prudent

The baby now becoming obstreperous, she goes into "Struth" to fetch a bib, and Maurice Cowley, seeing his chance of doing his crime, gives the infant an overdose of Kruschen. The Act closes with the discovery of Talbot's identity by Severn who threatens him with exposure unless he woos and wins for him the captivating Nurse Rosebud, which Talbot, masquerading as a Ward Clerk, promises to do:

For Matron's laws must be obeyed;
This law applies to man and maid;
And awkward though those rules may be
To break her laws were fiddle-de-dee.

THE DENOUNCEMENT. *Photo. by G. A. Walker.*

To yield to its glamour at once;
So imagine my doleful dismay,
When I find there's a rule in the way,
That Matron has spoken—
Her rules can't be broken—
And Ward Clerks alone are my prey,
Which I never counted upon
When I first put this uniform on.

The Second and Third Acts are played in the Park in front of the Nurses' Home and we make the acquaintance of Nurse Plumtree, who has been at Guy's for years and is going "mad, mad, mad!" because she cannot pass the State Exam. How she regrets the good old times—

When I was but a Junior Pro.
In good Sir Cooper's time,
The Hospital was different,
There was no cursed President
To do a daily crime;
And no one had the cross-word craze,
In good Sir Cooper's glorious days.

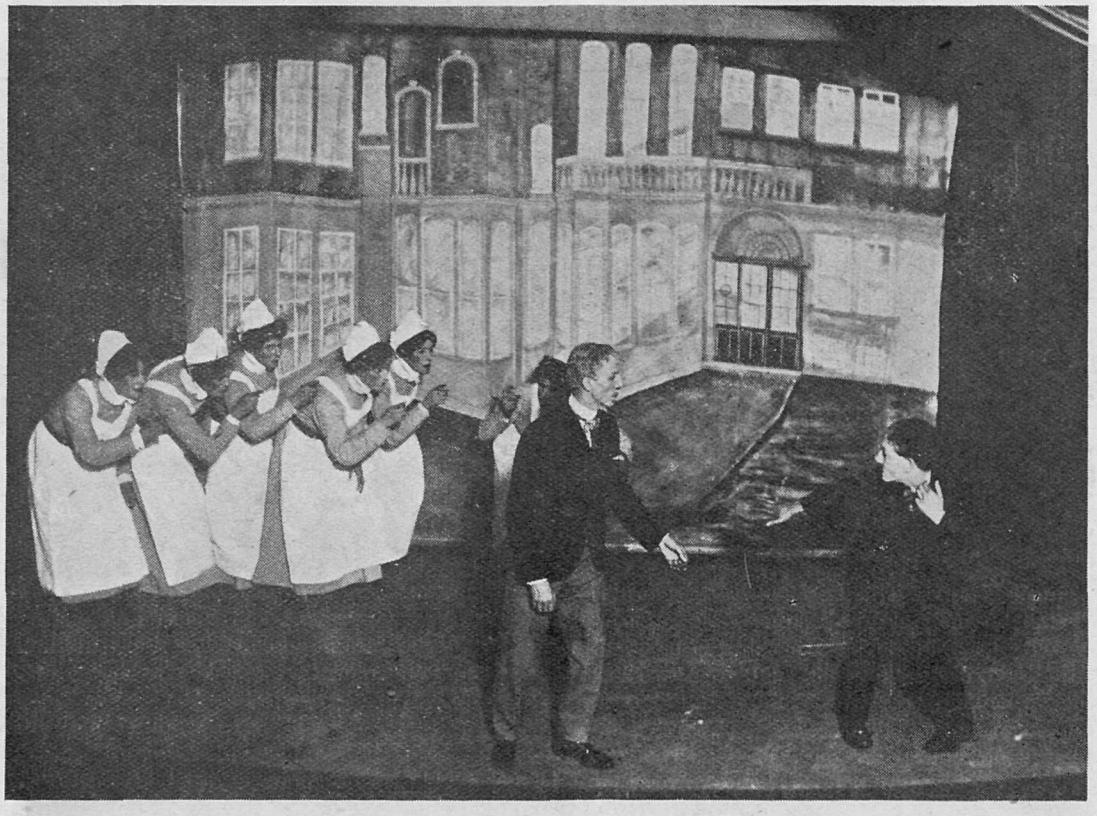
And Rosebud sighs:—

I wish that I had been at Guy's
In good Sir Cooper's year!
For regulations I abhor,
I can't think what they made them for;
They had none then to fear;
And dressers had such winning ways
In good Sir Cooper's glorious days.

To which Plumtree rejoins:—

The Residents in days gone by
(With good Sir Cooper here),
Were gentlemen, both brave and fair,
Wore morning coats, and brushed their hair,
And never tasted beer;
Moreover they wrote decent plays
In good Sir Cooper's glorious days.

April Appleblossom (S. P. Jacobson), a lady clerk with a canary-coloured jumper over her uniform has got the above craze badly and receives assistance from Nurse Plumtree. The bacteriologist of four letters beginning with EY and ending with E is allowed to be EYRE, "though its a funny little word,"—until they can think of a better one.



"After Him, Girls." *Photo. by G. A. Walker.*

Maurice Cowley, who is Nurse Plumtree's fianceé, seeks sympathy in his cursed existence and excuses his crimes because of the good deeds with which he seeks to expiate them. For example, he stole the Residents' beer-money, but gave it to the Bicentenary Appeal—so-called "because they are going on appealing for two centuries."

They retire to a more secluded spot, leav-

ing the Park to two gardeners who proceed to provide the entertainment of the evening. It was the Guy's version of the Gravedigger Scene in "Hamlet," and C. S. Hallpike and G. C. Millis scored a great hit with it. "When I sees wot these 'ere Nusses 'as done with their 'air, I sez, My Gawd wot 'as they done with it?" Sir Sherbet Trench is described as 'Ouse Physician to the King, which provokes the sentiment "Gawd save the King, anyhow." They brought ten minutes' excellent fooling to the following conclusion :—

We were out of a job and life was 'arsh,
So we came to Guy's and saw Saltmarsh,
We told him the tale with a weep and a waïl,
And he gave us a job in the morning.

The first job we got was carryin' coal,
We brought it in a sack and we put it down a hole,
But the hole we chose was the hole for the clo's,
So they gave us the sack in the morning.

Then next they made us laundry-men;
We sterilised all the clothes, but when
They sterilise us, we kicked up a fuss
And we asked for the sack in the morning.

So then we went to the kitchen down-stair,
And we carried rice pudden to the Lord knows where;
The pudden was nice, and we both liked rice,
So they gave us the sack in the morning.

And now in the Park we work as we please,
We either sow grass or we cut down trees;
When the grass grows green, and no trees can be seen,
We shall both get the sack in the morning.

THE HAPPY ENDING. *Photo. by G. A. Walker.*

And they carry on.

Talbot and Severn return and by way of contrast give us another side of life at Guy's:

Having passed examinations in the course and the relations,
And the branches which the seventh nerve affords,
Having learned to plot the work of the gastrocnemius jerk,
We are qualified to pass into the wards.

But in case this sudden change should our
tender minds derange,
We are treated by the Sisters here like dirt,
And Head Nurses do not show us that they
really want to know us,
And with Junior Pros. alone they let us flirt.

When the smell of anæsthetic doesn't act as
an emetic,
Looking on at operations we are found,
And Micawber-like we stand, always there to
give a hand,
While with trolleys we explore the under-
ground.

All the patients call us Doctor, but we don't
know if we're mocked or
If they really think us worthy of the name,
And our every second action drives the Surgeon
to distraction,
While the way the dressers treat us is a shame.

But one day we'll all develop traits that show
we're really well up
In conditions found from Lazarus to Queen,
And we WON'T enquire of Sister of the way
to treat a blister,
And we'll talk about the cases we have seen.

Then the patients we'll examine, knives and
needles we will ram in,
And at minor Ops. we'll cut and sew with glee,
And we'll make the right incision with com-
mendable precision,
And we'll even take the Sister out to tea.

Severn having departed, Nurse Rosebud returns and has a tête-à-tête with Talbot, who explains that he is only a ward clerk. "Then I don't see your difficulty," says Nurse, and brings the house down. They are getting on famously when Severn exposes Talbot's duplicity and Nurse Rosebud finds protection in his arms instead, though she tried to steal Cowley from Nurse Plumtree before finally settling down. The curtain falls on Talbot with the curse transferred to him and the Staff Nurses scared by his transformation off the stage.

But Rosebud is too much of a good thing, and like the gardeners, she gets the sack in a fortnight, or at the beginning of Act III. Severn transfers his affections to the more mature charms of Staff Nurse Delia and Rosebud retires to her room at the top of the Massage Building to weep—I hope, to drown, says Severn. Talbot is bidden by the Staff Nurses who are dissatisfied with his list of crimes to burn down the Massage Building and gets as far as laying a train which the Gardeners unwittingly fire, through carelessness. Rosebud is gallantly rescued and, the curse being finally exorcised by the brain-wave of turning the College into a Republic without a President, is made as happy with Talbot, as Cowley is with Nurse Plumtree. The best thing in the last act was the trio:—

Clement Talbot—

Now I have decided, come what may,
I will defy these Nurses,
I'll not do a crime for one more day
For 40 million curses.
My life I'll employ, I'll be a good boy,
Instead of a bold, bad bandit,
Whatever tortures they employ,
I'll still be staunch and stand it.

Jane Plumtree—

The sentiments you now express,
Command my admiration.
Your nerve is enough to stand the best,
Hypnotic stimulation.
I wish that the curse would only reverse
To the head of the man who planned it.
I wonder if he or any Staff Nurse,
Would be staunch enough to stand it.

Maurice Cowley—

I think that I also ought to sing,
But my words I can't remember.
I've tried very hard to learn the thing,
Since the middle of last December.
We did have a verse, which was very much
worse,
But the Superintendent banned it.
He told us to-night, in terms so terse,
That the Staff would never stand it.

Cowley's acting, enunciation and shall we say face-making were a good piece of work and will stand out in our memory of the 1925 play. June Plumtree (E. H. Koerner) interpreted a very distinct character sketch with admirable fidelity and perseverance, and without laughing at her own laughableness—which is more than could be said of the whole cast! Austin Severn (L. G. Housden) had a part which did not lend itself so well as some others would have done to the development of the powers he

showed in the Prologue, and it says much for the unselfishness of the President that he chose rather a stiff and unsatisfactory part. Nurse Rosebud (D. Vaughan) was a delicious leading lady, and the baby (G. C. Millis) and Testmelia (B. G. Scholefield) were perhaps the outstanding minor characters.

It is always a marvel that such busy people can squeeze the Residents' Play into their activities each year, so it seems a little unkind to suggest that the Third Act ended abruptly, but the GAZETTE is nothing if not truthful. All the personal references in the play were free from envy, hatred, malice and uncharitableness, but the Padre in the Prologue and the Matron in the Play got more than their due share of attention and like criminal juries claim exemption now for ten years, while the Medical and Surgical Staff who escaped so lightly this year are "for it."

"The Curse" from Behind the Scenes.

IT was never my intention to be an actor; I am not made that way. There is something obtrusive about my hands and a tremulous anxiety about my voice that precludes me from gaining distinction in such an ostentatious rôle. When I was very young, I would sometimes feign terror of the dark in order to be brought down to supper, but my acting has never reached a higher plane than that. I like my fireside and I like my bed, and occasionally, when real money has given place to "paper," I like to sit in the stalls and feel that I have got in for nothing. But I do *not* like being an actor.

It was pure ill-luck and the fact that no one else had applied for my job, that made me a "Resident" this Christmas, and forced me into my unwelcome rôle. Of the rehearsals I will say nothing, except that from the very first I was fully in favour of the middle syllable of the word, and could have found a quick and congenial use for quite a number of them. The dress-rehearsal, too, was comparatively free from the terrors of the succeeding nights, but those nights will haunt me beyond the grave as nights of painted, desperate, tongue-tied horror.

Long before the audience had taken each other in to dine, the character-artist had set to work on our faces with an enthusiasm for his art, which was only equalled by his callous disregard for our agonised protests. Over a layer of the coldest cream ointment, the colours were skilfully and painfully applied. Our beards and eyebrows were groomed with stiff wire-brushes, our lips and ears were submitted to the most gluesome indignities, while our eyelids were outlined, inside and out by the feel of it, with blacking applied with an orange-stick. As a last, masterly touch, we were invited to open our eyes, which, on our complying, were immediately filled with powder and a large part of the powder-puff. This curious artifice for the enhancing of the natural beauty of the eye I understand depends on the production of an acute conjunctivitis, the ensuing tears causing the eyes to glisten and look very soft and tender from the stalls. For this effect I can vouch, for my own eyes seem likely to remain very tender for many days to come.

As the hour of commencement approached, signs of panic began to appear in the dressing-rooms. With only ten minutes to go, only half of the actors had been "made-up" and the pitch of nervous tension that was thereby caused threatened to produce scenes of bloodshed among those waiting for access to the face-artist. Those already prepared sat mournfully in corners trying to recover lost speeches and preparing for the ordeal of delivering them. This preparation I found was one of the most difficult branches of my new art and, as far as I know, there are no books of guidance on the subject. The alternative seemed to be to take too much and forget my words, or to take too little and so to be too shy to say them. The happy mean was beyond my attainment; I did not achieve it on any one night.

At eight-fifteen punctually—oh, how very much too punctually!—the orchestra struck up with the overture and the producer, red of face and very savage of appearance, called out in his stentorian voice, "Now then, you jelly-fish; don't forget your 'cues'!" "And mind your 'P's,'" I whispered, in a vain attempt at humour, only to be told that if I

wanted to shout out inanities like that, I had better go into the "green-room." What wouldn't I have given at that moment to do as I was told!

The orchestra ceased abruptly and the wretched President was dragged on to the stage, wrapped in a large, black cloak, and pushed out between the curtains. Poor victim of an overwrought mind, he could have got there no other way. His quivering limbs could scarcely bear the weight of his body and his chattering teeth were audible to the very back of the gallery. This last fact was his salvation, for the audience, taking the sound for distant applause, broke into a prolonged welcome of clapping, the longest and most enthusiastic display of the entire performance, and the time so spent allowed the miserable wretch to recover sufficiently to remember the opening line. The rest followed sub-consciously, the result of weeks of memorising.

At last—"There isn't a wardmaid anywhere in it"—he whispered and disappeared with dramatic suddenness having, in fact, fallen back through the curtains, overcome by mixed feelings of relief, anxiety and horror at being unable to recall a single line that he had spoken.

From then until the end I was constantly entering and leaving the stage, always in a confused condition. My words came to me sometimes through divine compassion for the afflicted, sometimes by the hoarse whispers of the prompter and my fellow-mummers. I remember but little of it. Once I heard the Manager say to me, "Do you go on 'prompt' or 'O.P.,'" and I replied "Oh, pretty prompt!" but even that seemed not to please him. Only once did I really rouse myself from my stupor, and that was when I saw a look of horror come over the producer's face and heard him say, "Just look at Plumtree, she's dead on the footlights!!" "My God," I gasped, springing forward, and was only just prevented by the hands that grasped my skirts, from rushing on and ruining the piece. I shall never understand these stage terms, and I shall never try; what is more, I shall never again try to be an actor.

Correspondence.

A little-known Poem "On the Statue of Thomas Guy in the Chapel of his Hospital."

DEAR SIR,—The enclosed sonnet, entitled "On the Statue of Thomas Guy in the Chapel of his Hospital," has just come into my hands. Believing that it is practically unknown amongst us and that it deserves the wider publicity of your columns, I venture to send it to you. I am informed that it was written by a deaf and dumb man named William Henry Simpson, and published in June, 1858, in a book called "Day Dreams of the Deaf." The last line of the sonnet is practically a quotation from the inscription on the pedestal of the statue.—I am, Sir,

Yours very truly,
ALFRED G. HARRIS.

Hail, genuine triumph of the sculptor's art,
That with life's semblance animates the stone!
Presenting to our minds his counterpart,
Him in whom Charity conspicuous shone
Gentle, unclouded, pure. Not to atone
Long years ill spent this noble pile arose
That bears his name: God largely bless'd his store,
The means of mercy placed at his dispose,
Who rightly used, and gave them to the poor
While God vouchsafed him life. Such bounty flows
Only from hearts that beat with love, and sigh,
And tend on human woes;—the love that springs
Nurtured in heaven.—E'en such was Thomas Guy,
Who "rivalled the vast charities of kings."

With Many Thanks.

DEAR SIR,—We shall be very grateful if you will allow us, through the medium of the GAZETTE, to thank the many very kind people who have helped so largely to

make the recent activities of the Residents so successful. Mr. O'Meara, who has now been so largely responsible for many sets of "Niggers" and for many Plays, again, this year, undertook the production of both entertainments and the Residents feel that what measure of success attended them in these histrionic essays was very largely due to his untiring and patient production. Others, who rendered invaluable assistance, were the ladies and gentlemen, and particularly Mr. H. E. Lewis and Mr. Benson, who formed the orchestra at the Play; Mr. Saltmarsh, who aided so largely with the staging and scenery; the Clinicals and Mr. Winstone, who directed the audiences so amiably into their seats, and Messrs. Clemmy, Martin, Ensor and Pye-Smith, who, with their magnificent scenic effects, nearly frightened them out of them again. Lastly, we are all very much indebted to the Authors of "The Curse," Messrs. A. T. Rogers and N. L. Lloyd, for their great kindness in writing so excellent a play for the benefit of their admiring public, to Mr. Stanley Cock for his excellent illustrations on the programme, and to Mr. H. J. Selby for his help on the "first night."

To all, who have in any way helped us throughout the Christmas festivities, we now, through your kindness, convey the thanks of The Residents, whose humble servants we have the honour to be.

E. E. NESER.
L. G. HOUSDEN.

Guy's Hospital,
London Bridge, S.E.1.
10th February, 1925.

"Guy's Celebrities."

DEAR SIR,—I have read your special Bicentenary Gazette and hasten to point out a very obvious and unaccountable omission. Under the title of "Guy's Celebrities," I can find no mention made of William Gray, the head College Porter, the oldest uniformed man at Guy's and a servant of the Hospital for well over thirty years. The reason that you have stated for this lapse of Editorial efficiency, namely that you did not think he could have been here so long as he looks too young, is the most inadequate of excuses. You might as justly argue that you yourself have been here for thirty years since you look so old.

Ignorance in any Editor is regrettable, but in the Editor of such an authoritative publication as the GUY'S HOSPITAL GAZETTE, is inexcusable.

You are much to be censured.—In high dudgeon, I am, of necessity, Yours sincerely,

LESLIE G. HOUSDEN,
Editor.

Gazette Office,
Guy's Hospital,
London Bridge, S.E.1.
10th February, 1925.

[We are very sorry.—Ed.]

Metropolitan Public Dental Service Dinner.

DEAR SIR,—I should be grateful if you would kindly find space for this notice of the Second Annual Dinner of the Metropolitan Public Dental Service, which will be held at the Hotel Great Central, Marylebone, W.1, on Wednesday, March 4th.

Mr. W. M. Gabriel, M.R.C.S.Eng., L.D.S. Eng., will occupy the chair.

Well-known members of the Medical and Dental professions, and Government Departments, have kindly consented to come and speak. In addition, a good concert programme has been arranged: Reception, 6.30; dinner, 7 p.m.; carriages, 11.15 p.m.

Will any of your readers, who wish to come, please apply at once to me enclosing cheque, and stating next to whom they would like to sit. Tickets, 12s. 6d. each.

Should they be Members of any Dental Society or Hospital, would they please mention the fact, so that they can be seated with their friends.—Thanking you for your courtesy,

Believe me to be,
Faithfully yours,
N. S. HEEGAARD WARNER
(Hon. Secretary and Dinner Secretary).

186, Queen's Road,
S.E.15.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Bibliography of the Published Writings (1876—1924) of Cuthbert Hilton Golding-Bird, B.A., M.B., F.R.C.S.

Compiled by Geo. A. R. Winston, Wills Librarian.

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(As nearly all the journals in which Mr. Golding-Bird's writings have appeared were published in London, the place of publication has been omitted in the references, except when it is other than London.)

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(To be continued.)

Reviews.

General.

Physiological Principles in Treatment. By LANGDON BROWN, M.A., M.D., F.R.C.P. Published by Messrs. Baillière, Tindall and Cox.

IN the preface to this book, newly fledged in its 5th edition, the author concedes that the physiologist is "sometimes inclined to forget that observations made in the laboratory are not infallible, and are not necessarily more correct than clinical evidence." But while this much admission is made, it is evident that he is out to refute the dictum of Samuel Butler (II) that, "a physician's physiology has much the same relation to his power of healing as a cleric's divinity has to his power of influencing conduct." Granted that personality counts for much in both professions, it cannot be denied that there must be knowledge behind it all, and that the physician who is ever conscious of the physiological why and wherefore in his disentanglements of the normal and abnormal carries an advantage over his more empirical brother.

The scheme of the book is simple, each chapter contains a succinct description of some one activity of the body, such as respiration, digestion, vasomotor system, ductless glands, following upon which are given the corresponding diseases that may arise and then their treatment. The book, therefore, should appeal to three sections of the medical profession. Firstly to those not yet entered the wards, but who are anxious to perceive the clinical value of what they have learnt; secondly, to those who have reached the wards, because it will enable them to interpret symptoms in a rational manner and to build up a sound construction of their case; and lastly, to the general practitioner whose difficulty amid a clamourous practice is to keep abreast with the latest physiological developments.

Sport.

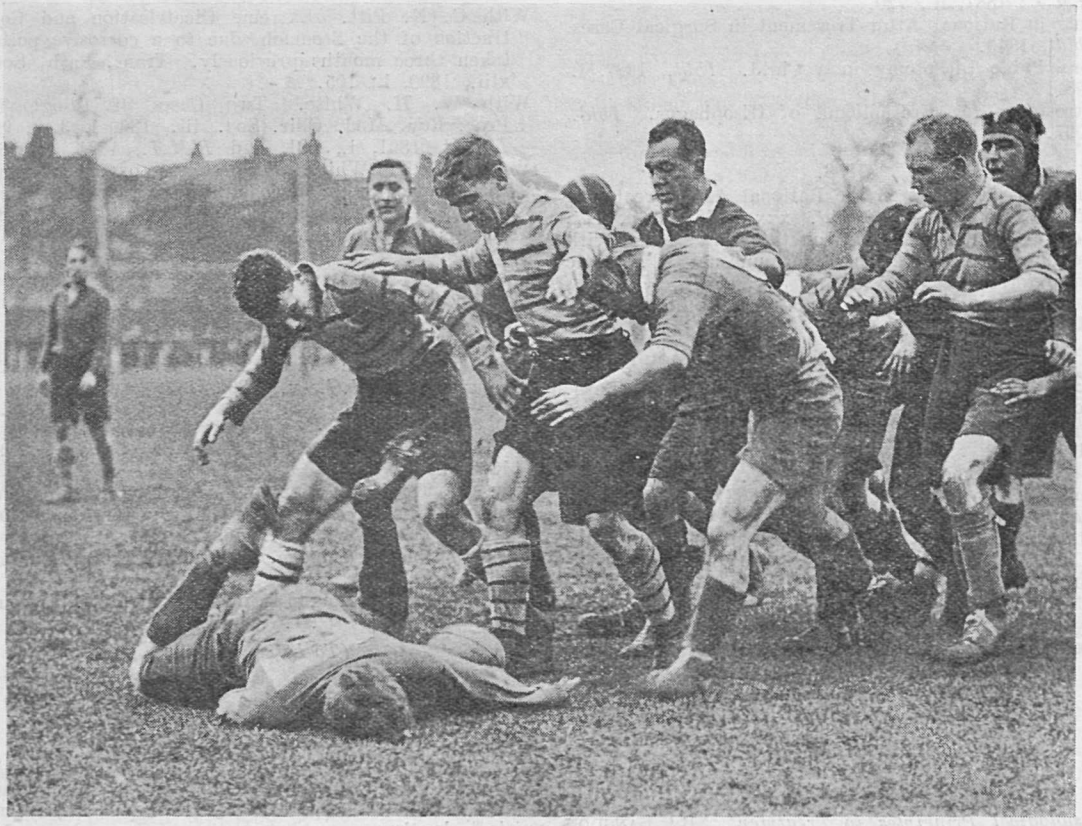
Rugby Football.

Guy's v. Bart.'s.

Inter-Hospital Cup Competition.

IT was the lot of these two sides to meet in the first round in the Senior Competition of the Inter-Hospital Challenge Cup. Our opponents were without their Captain, for which all were sorry, as A. W. L. Rowe, the old Oxford Blue, is a great forward and his absence was a great misfortune. Gaisford, their full back, was not able to take the field, as all know he was injured during the late tour in South Africa. On our part G. G. Cameron had not sufficiently recovered from a hurt sustained at Richmond before Xmas.

The ground was hard, the ball dry and full of liveliness, and was difficult to hold. For months no player can have handled such a light and airy customer. The game started and Guy's pressed, though the pressing was done by the forwards. The backs did not get going and the Bart.'s half back, who worked the scrum, was too quick for Hops. One thought that Williams was a great deal offside, but Mr. T. H. Vile, the referee, evidently did not think so and one would indeed be brave to doubt this most excellent referee. Hops was subterranean in his passing, and though our men fumbled badly, the fault was often in the giving and not in the taking of the passes. Bart.'s also mishandled and though both packs did well, no threequarter movement took place. Then we tried the oblique kick and Graham-Davies with one of these kicks sent the ball



PREEN STOPS A RUSH.

into the hands of L. C. Neville who was off the mark at once; Davies just tipped his heel, Steyn was nowhere near him, and Spence missed the Bart.'s man who finished a run of 50 yards with a good try. Bettington failed to goal. The Guy's forwards again strove manfully, and Scholefield and Neser were held just out. Van Schalkwijk did some wonderful kicking and Durr did the work of three. Still no attempt at concerted threequarter play, but a tremendous amount of punting to touch. Half-time crept on ever nearer and though one felt we were top dogs, the score was against us and the passing minutes took years off the lives of some of Guy's more nervous supporters.

Splendidly did the Guy's pack set about their task during the second half, and before very long Graham-Davies got the ball out to Fellowes-Smith who ran splendidly and scored wide out. Just before he had been almost over. Neser kicked a magnificent goal. Relieved beyond measure we settled down again to watch the ball sent flying to touch. We were the possessors of so small a margin it seemed wrong not to try harder for more points. Then Preen got the ball to Steyn, but the winger missed the ball. Twice more

FELLOWES-SMITH HANDING OFF.

he missed his pass. Bart.'s, whose forwards tried unfailingly, gained a better position, but Pentreath was always too near the touch line to get going. H. Macgregor was a source of danger, and Neville required constant watching. Preen cut through at the other end, and once the ball kicked ahead was ably followed by Graham-Davies. The ball hit the upright and Frederick secured a defensive touch. At the Guy's end Hops cleared a nasty position and then Scholefield got possession and ran out of danger. All the time our Captain was kicking most cleverly, though one wished he would try more running. Then came that long pass. I am not sure even now who threw it out, the ball bounced well for Fellowes-Smith and he made no mistake, running well to score an unconverted try. Soon after the whistle went and we had beaten the "Holders' by 8 points to 3 points, or 1 goal and 1 try to 1 try.

Spence, beyond the mistackle of Neville, did well. If one could kick with the same accuracy as J. G. Van Schalkwijk, one would feel inclined to try playing Lawn Tennis with the foot. Length and direction were almost uncanny. Steyn was not the confident Steyn of old, probably not quite so fit as one had hoped. Fellowes-Smith was determined and sure, taking passes surely and making the utmost use of any opportunity. He has played splendidly all the season, but never better than in this match. Alike in defence or attack Graham-Davies has never played better, though shaky for the first ten minutes, after that he was neat, clever and most efficient. Preen was very good indeed. Hops was shaky at first and slow, but afterwards played a good game, being much more versatile in his methods and defending like a Trojan; may his initiative soon equal his pluck. The forwards came absolutely into their own. They were a splendid eight and the only man of the pack I would specially mention is J. Durr. He was suffering from a kick all through but never once did he slacken and his prominence was evident in every department of forward play. May the best of fortune be with Van Schalkwijk and his men in the remaining rounds. The path to the Cup is never easy and we have three more doughty opponents waiting for us. How many we reach or who reach us is in the "Lap of the Gods," but no "easy" may be called till we are knocked out or until we bring the "Cup" home with the "Milk" can.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. E. Neser, N. M. Holloway, W. H. Myburgh, J. W. Schabort, E. W. Hutchinson, De Wet Vorster.

Guy's v. Cambridge University.

ONCE again, on Wednesday, January 28th, at H.O.P., was the fact vividly brought to mind that our home matches should be played, as many as possible anyhow, before Xmas. There is no good mincing matters, our ground is notoriously bad in bad weather, and yet we appear to play away in the finer and earlier part of the season, returning home with extraordinary persistency in the muddy season. Cambridge always alternate so no fault can be found with them, and on this particular occasion they were even more fortunate than usual at Honor Oak Park in January, although it rained hard almost from the start. Two years ago the match was scratched owing to frost, fog and snow, and two years before that, the match was played on a dreadful wet thaw just giving after a hard frost. Well this weather business we must leave, and it is mentioned simply in the hope that the conduct of the Honor Oak Park climate may impress itself on the mind of those who are to arrange our future fixtures.

What were Guy's doing that first few minutes against the Varsity? The Light Blues were all over us and in that time we lost the match. The tackling was bad and there was no reason at all why the second try should have been gained. The first one was a good one and a surprise to us. Hamilton-Smyth, as stand-off half, was quickly away and sent to Field on his right, who ran left and reached his left-hand winger by running right across the field. Devitt with a fine turn of speed did the rest. The second try was also got by Devitt, who received from Bishop somewhere about midway. Bishop ran right down the centre. Here several tried to stop him and instead of grassing him good and hearty, let him pass a high lofty one to Devitt who made the best of his opportunity.

Guy's forwards, not liking the look of things and the weather getting worse, now took charge and they never left off going, through about 50 minutes jolly hard play. They were splendid. Durr, Scholefield and the other six, not

forgetting the latest newcomer, J. Popplewell, did their share with a vengence. Steyn, by nimbly following up, scored a try before half-time.

After that period, the play of our pack was still tip top; rush followed rush with never a a pause, and then success came. Durr gained the try and as there was no conversion the game was now level. Just after, Fellowes-Smith shot away and a try was certain, yet Mr. Dodridge whistled him back. Just before half-time Fellowes-Smith scored what looked like a good try, but the referee had previously blown his whistle. Very hard luck this. Notwithstanding the pelting rain, both sides stuck it wonderfully, mud spattered and it was difficult to tell Cambridge from Guy's. Tucker and his stalwarts stuck it, and then Field, getting the ball in his own half, ran fast and well to gain a glorious try and win the match for the Light Blues. The pace of Field on the slippery going, and his surefooted confidence well deserved the try. Our men had done their best, and although no day for the backs, they had, since the first two tries, tackled and saved well. The forwards provided us with their star turn of the season. All one can ask of them to repeat it on February 5th.

Result.—Cambridge University, 3 tries (9 points); Guy's, 2 tries (6 points).

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. E. Neser, N. M. Holloway, W. H. Myburgh, J. F. Schabort, J. Popplewell, De Wet Vorster.

Cambridge University Team.—W. S. Scott (Clare); Sir T. G. Devitt (Corpus), C. C. Bishop (Christs), E. B. Wakefield (Trinity), G. A. C. Field (St. Johns); P. S. Douty (Pembroke), A. Hamilton-Smythe (Trinity); E. W. E. Tucker (Caius), D. W. C. Cumming (Caius), C. S. Barlow (Caius), C. Nichols (Peterhouse), G. O. C. Hamilton (Caius), E. Gibson (Trinity), E. W. E. Hall (Pembroke), J. J. E. Smith (Trinity).

Guy's v. Old Leysians.

OF all the sporting teams there is none better, playing Rugby to-day, than the Old Boys of Leys School. With very few playing members the side is kept very much alive and, though many times they are hard put to it to raise 15 men, yet when the time arrives, there they are with 14, 15 and sometimes 16 gallant fellows ready for the game; and the game it is; if they win so much the better. Be the score light or heavy against them, they still battle on with all the pluck and spirit imaginable, and on Saturday, February 17th, they proved themselves no mean opponents. We were at full strength, except that Durr, Scholefield and Spence were not available, and early on we got first blood, always an inspiring advantage. Neser landed a good penalty goal. We had various passing movements and much of the handling was good. Clark made two or three dashes on the left and Fellowes-Smith was almost over by the right hand corner flag. Then came a typical try by Van Schalkwijk, the opposition waiting for the pass to Clark, which never came. The next item of interest was a good break through by Scholefield, for the Old Boys, he got clear of all opposition, but Van Schalkwijk caught him up in time. Guy's then put in a perfect round of passing, Graham-Davies the last to receive racing behind. Neser was not successful with this kick, but the kick that converted Van Schalkwijk's try was a very fine one, as the angle was very awkward.

The second half was not so much in our favour. The Old Boys were much more prominent, and several times our defence was hard put to it. But it held, and the Guy's score was further increased by a good try from Fellowes-Smith and an equally good conversion on the part of Boyle who was deputising at full back for Spence. After this Guy's put less energy into the game. The Cup Tie of Thursday must have taken a good deal out of the men, and it says much for their good sportsmanship that all, who possibly could, took the field again so soon after the strenuous Cup Tie with Bart.'s.

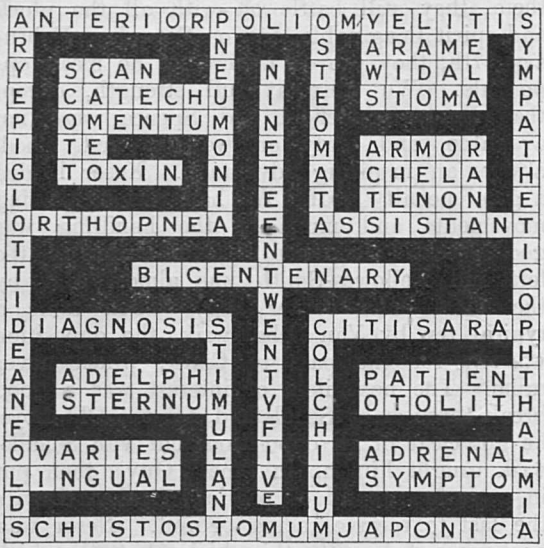
Guy's Team.—V. G. Boyle; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen, E. E. Neser, N. M. Holloway, J. W. Schabort, W. H. Myburgh, E. W. Hutchinson, De Wet Vorster, J. Popplewell, J. Visser.

Appointment.

Allen Hancock, M.C., M.R.C.S., L.R.C.P., D.P.H., D.P.M., Clinical Assistant at the Handsley Hospital, Denmark Hill.

Hospital Information, etc.

Cross Word Puzzle—Solution.



Pass List.

Conjoint Board.

Final Examination.

January, 1925.

Medicine.

M. F. Butler.
*A. C. Lysaght.
*C. L. Worthington.
*T. M. Fripp.
*A. V. Clemmey.
*H. M. Worth.
*H. Van der Post.
*A. E. Hill.
P. R. T. Becker.
*R. N. Brandwood.
*C. F. Morrison.
*T. A. Shaw.
W. S. Whimster.
*J. C. Young.
*I. P. Spurrell.
*G. S. Landon.
*D. F. Johnstone.
*F. C. Miller.
D. R. Martin.
J. U. Human.
R. L. Waterfield.

Surgery.

O. T. A. Krause.
*A. V. Clemmey.
*H. Van der Post.
H. M. H. Ashwin.
*A. E. Hill.
H. Moore.
*J. C. Young.
A. S. Gough.
*R. A. Norman.
A. W. Riddolls.
*H. Lewis.
H. J. Selby.
*G. R. Ford.
J. A. A. Mekelburg.
*T. G. Tresidder.
J. G. Goodman.
*J. D. S. Thomas.
*J. N. D. O'Rafferty.
*R. A. Grant.
G. T. Nankey.
C. H. Highfield.
E. C. Werner.
A. S. Plant.
J. R. Ratcliffe.
I. C. Beauchamp.
R. W. Cunningham.
H. Kessel.
W. K. Targett.
N. A. Arnold.
H. Trafford.
H. G. Wimbush.
G. Davies.

Midwifery.

C. C. Po.
*A. V. Clemmey.
F. R. Dingle.
R. C. May.
A. C. Taylor.
H. N. Collier.
J. W. Groom.
C. F. Perry.
A. S. Gough.
E. Bowen-Jones.
J. Evans.
E. G. Smallbone.
S. V. Strong.
B. Kornblum.
C. B. Andrae.
H. L. Peake.
L. E. Houghton.

Society of Apothecaries of London.

January, 1925.

Surgery.

T. McD. Kellough.
J. Maingard.

Medicine.

C. W. Brown (Section 1) *C. W. Warne.

*Has now completed the examination.

Papers by Guy's Men.

H. W. Barber, M.B. Case of Lupus Pernio (Sacroid-Schaumann Type) associated with? Lupus Vulgaris.—Proc. Roy. Soc. Med., Sec. of Dermat., xviii., 1925, p. 23.

G. B. Dowling, M.D. (1) Case of Lupus; (2) Case of Granuloma Annulare.—*Ibid.*, p. 32.

C. Worster Drought, M.D. (1) Case of Dyspituitarism following Encephalitis Lethargica; (2) Congenital Bilateral Achetosis; (3) An Unusual case of Myopathy.—*Ibid.*, Sec. of Neurology, pp. 2, 3, 4.

Publications Received.

The British Medical Journal, The Nursing Times, The University of Durham College of Medicine Gazette, The Queen's Medical Magazine, The Dental Record, The Cambridge Gownsman, The St. Bartholomew's Hospital Gazette, The Minutes and Proceedings of the Dental Faculties Association of American Universities, 1908—1924, The Journal of Cancer, The Isis, The Charing Cross Hospital Gazette, The Indian Medical Record, The Navy, The St. Mary's Hospital Gazette.

Birth.

PENNY.—On the 19th January, 1925, at a nursing home in Balham, to Madge (née Cubbon), wife of Laurence John Penny, a son.

Marriages.

DODD—LODGE.—On February 3rd, 1925, at the Chapel of the Old Charterhouse, Dr. Frederick H. Dodd, M.R.C.S.Eng., L.R.C.P.Lon., F.G.S., of 2, Devonshire Place, W.1, to Kathleen Elizabeth, youngest daughter of Prof. Alfred Lodge, of Banbury Road, Oxford.

BEVAN-BROWN—YOUNG.—On January 3rd, 1925, at Footscray, Kent, Charles Maurice Bevan-Brown, M.A., B.A., M.B., B.Ch., eldest son of Mr. and Mrs. Bevan-Brown, of Christchurch, New Zealand, to Elsie Muriel, eldest daughter of Mr. and Mrs. J. W. Young, of Sidcup, Kent.

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

THERE are many little accidents of this life that cause us extreme gratification, but none pleases us more than the confirmation of a pet idea. We have a large number of these pet ideas and usually they receive little encouragement from our friends. This, we think, is due to the failure of our acquaintances to bring the full force of their vast intellects and powers of observation to bear on the subjects, when considering them. For our part, we are always seeing our ideas borne out in everyday life. One of these ideas is that, within reasonable limits, every man, who intends to inflict the benefits of modern medicine and surgery on his fellow men, should first submit to a similar ministration by his colleagues. We are not for one moment preaching the advisability of universal collectomy or even of tonsillectomy throughout the medical profession, but we do feel very strongly that each student of medicine should know from personal experience the difficulties of swallowing an Einhorn's tube, the unpleasant consistency of a bismuth meal, the feelings of apprehension associated with the induction of anæsthesia and many other sensations, that their patients will be asked to undergo. More sympathy would be born of this finer appreciation of the patient's doubts and difficulties and, from personal experience, those patients could be told how to overcome them.

In this short course of practical experience, we have always thought that a short sojourn as a patient in one of the wards would be of high educational value and this idea we have now been able to confirm for ourselves.

We would at once place on record our definite persuasion that for the invalid, whose very bones have gone into league against him, to rack his limbs with dull, aching pains and drive out sleep by turning and twisting him in a vain search for comfort, that cannot be obtained, a hospital ward is as Paradise to the damned, though more accessible. Few sensations could surpass the feelings of peace and security, that overtake the fever victim, when his shivering body is wrapped round with that first hot blanket.

Oh, that hot blanket; that quite unsurpassed device of sleep-wooing comfort! Who first devised so beneficial an aid to nursing has done more than the most lauded leaders of the art of healing, for, of a truth, the hot blanket advances recovery in a way that is unhoped from most medicines. If we were an examiner in a final medicine examination, we would expect every candidate to commence his account of the treatment of every ailment with some such words as these:—

"Place the patient in bed and enwrap him in a large, hot blanket, bringing it well up under the chin, seeing that the feet do not protrude from the bottom and tucking it well into all the nooks and crannies, that the patient may fall into that ineffably peaceful sleep, so rarely achieved, except by poetical creatures such as Abou Ben Adhems, things of beauty and hot blankets."

Credit would be given for such a beginning, vast credit and possibly distinctions.

While the patient remains so ill that his world consists entirely of one, large, hot blanket, the ward is his promised land, but, as he recovers and is able to take in a wider sphere of his existence, it may bear a different aspect. Patients are usually sorted more or less, according to their pathologies, those with similar affections finding themselves side by side. Thus the "chests" are largely gathered together, where their lesions may be located by percussion, the stomachs with abnormal hydrochloric acid content being in the ward below them This is very satisfactory from the point of view of the Physician, but it is not humane. Patients are not diseases; that is only an unfortunate part of them. They are living men and women with souls of greater or lesser powers of feeling, and should be grouped, not according to their diseases, but according to their temperaments. It is, to our way of thinking, an act of great cruelty to place a sensitive, poetically minded creature in a bed between two coarse, uneducated boors, whose soulless conversation, carried on across the bed between them, will only be surpassed in its irritating monotony by the loud, penetrating tones, in which it is carried on. We have heard of such a case. It was early in the morning. The patient, who was essentially a "sensitive creature" was breaking his fast; rather he was attempting to break it, for he was only just master of the desire to sleep and was suffering those feelings of nausea that so often result from such a mastery. This was the moment chosen by two neighbours to begin a loud and detailed discussion of the more intimate details of their rather unpleasant diseases. It was a favourite subject with them and they waxed if not eloquent at least redundant in their relation of the most picturesque symptoms. The sensitive creature pressed his hands to his ears and eat more and more slowly until a sudden, copious attack of vomiting in the small boy in the next bed put an end to all pretence of further breakfasting. We do not suggest that the small boy's behaviour was induced by the preceeding conversation, but it was certainly, to put it very mildly, unkind to place the four patients together. In the next division of the ward was a man of few ideas, who, whenever the younger patients got a little hilarious, invariably besought them to "put a sock in it." He would have enjoyed an early morning conversation with the symptom-swoppers, and might well have changed places with the more sensitive patient. This is only one small example to illustrate the general idea of warding patients according to temperament. We could elaborate it at great length and with some feeling.

Another point that would suggest itself to every student, during his training as a patient, would be the advantage of warding patients according to age. This, of course, would be within certain limits. Unless they cry continuously, women like a few quite young children in their wards as a rule. Men also like boys who are old enough to be obedient. But six or seven children of from seven to twelve years of age can create pandemonium in a ward, if they are near each other and especially if they do not feel very ill. Their continuous and high-pitched chatter is able to drive an elderly patient, who feels very unwell, to the borders of desperation and, although the children mean no harm, they unwittingly cause it. Isolated, they cheer the elder invalids; in groups, they irritate them beyond measure. The children themselves vary. No one could complain of the eight-year old boy, who is content to take his temperature for an hour at a time with a lead pencil, every few minutes removing it from his mouth to shake down the "mercury." But an hour of "'Orsey, 'old your tail up," will tell on the most placid mind and give occasion for many a resigned "oh, hell," or raucous request to use a sock.

There are so many things, that the warded student would discover, even perhaps to his way of talking to the patients, that we grow more and more wishful for "one week warded" to be included in the syllabus. The number of men, who can, in imagination only, put themselves in another person's place, is small and for the rest, an opportunity should be given for taking the other person's place in reality. It is one of our pet ideas. Think it over.

THE many Guy's men who contributed so generously to the Fison Memorial Fund will be interested to hear that the first Memorial Lecture will be given by Professor Sir J. J. Thomson, the Master of Trinity College, Cambridge, on Thursday, May 7th, at 5 p.m., in the Physiological Theatre of Guy's Hospital Medical School. The Rt. Hon. The Earl of Balfour has kindly agreed to preside.

Further details will be published at a later date.

Guy's Hospital Bicentenary Appeal.

Miss Thorndike in "The Hippolytus."

ON Tuesday afternoon, February 24th, Miss Thorndike gave a matinée of "The Hippolytus," in aid of the Bicentenary Appeal.

The Hospital is truly grateful to Miss Thorndike for this excellent performance. Everyone has, no doubt, read of the splendid criticisms of the matinée in the Daily Press. The house was full and the audience enthusiastic to the last degree.

In expressing our gratitude to Miss Thorndike, we also should like to express our great appreciation to all those who so kindly helped her. Special thanks are due to all those taking part in the performance, as well as the Theatre Management, Programme Sellers and Collectors.

The Proceeds from this most successful performance will be announced later.

Our grateful thanks are due also to Sir Alfred and Lady Fripp.

The Disguysed Minstrels.

Two more successes can now be added to the many performances of the Disguysed Minstrels.

One was on February 16th at Teddington by kind arrangement of Dr. Camps. The performance took place at Summerleigh, Teddington, by courtesy of Madame Mottu, to whom we offer our grateful thanks, and whose support on this evening was invaluable.

The proceeds amounted to £32. Dr. Camps most kindly paying all expenses.

The next performance was at the New Lodge Clinic, Windsor, on Tuesday, February 24th, by kind arrangement of Dr. Hurst. This of necessity entailed a small, if distinguished, audience, but the enthusiasm and success of the evening was not in anyway diminished because of that. The Minstrels gave an excellent show and it is another instance of the wonderful way in which the Minstrels appeal so successfully to every type of audience.

The proceeds amounted to £41, a really excellent result, and we are indeed grateful once more to Dr. Hurst for all his trouble, kindness and hospitality.

Dame Nellie Melba.

We are now able to announce, through Dr. Hurst, that Dame Nellie Melba has promised to give a concert on behalf of the Appeal sometime in June or July next.

This is wonderful news for which we are immensely grateful. Such a performance will be of the utmost value to the Bicentenary Appeal, and full details will be announced as soon as possible.

Lent Collecting Boxes.

Small Collecting Boxes made of cardboard, and easily despatched by post, are now available on application.

It is thought that these small simple boxes might be used with great success as the means of a Lent collection. The suggestion has been adopted by one Church and the Vicar has most kindly distributed some of them amongst his congregation. Further particulars can be obtained by those interested from the Secretary to the Treasurer, Guy's Hospital.

Spinal Analgesia.

A Lecture delivered at Guy's Hospital by FRANCIS E. SHIPWAY, M.D.

GENTLEMEN,—Spinal analgesia is the injection of a local anæsthetic into the sub-arachnoid space, so that it mixes with the cerebro-spinal fluid, and comes into contact with the posterior and anterior nerve roots which are reached by the solution. It is a regional analgesia. I say analgesia, because anæsthesia means a loss of all sensation, whereas analgesia means loss of sensation to pain, and that is all that is found as a rule in spinal analgesia. The afferent and efferent nerve impulses are blocked, and the corresponding areas become insensitive. Sensation to pain is abolished, but the other sensations, those of touch, of heat and cold, of pressure and traction, are not abolished. Motor paralysis is usually complete, so complete that the abdominal muscles are absolutely slack, in a manner which it is impossible to attain by any other method of anæsthesia, so slack, sometimes, that they fall into the wound instead of having to be held apart by retractors. Whether the spinal cord itself is affected by the solution is not absolutely known, therefore I can say nothing about that; most observers, however, think that it is not.

The height to which the analgesia rises varies with the dose of the drug used, the force of the injection, and two properties of the fluid injected, namely, its diffusibility and its specific gravity. Obviously, the larger the dose used and the greater the force employed in the injection, the quicker will be the onset of the analgesia, and the greater the height to which it rises, and, also, the longer the effect will last. Some anæsthetists attach importance to the amount of cerebro-spinal fluid which should be allowed to escape before the solution is injected. Some go as far as to allow as much as 10—20 c.c. of the cerebro-spinal fluid to escape before they inject the solution; others think as little as possible should be allowed to escape. My own practice is to inject as soon as a flow of cerebro-spinal fluid has been established.

The mechanism by which the drug travels in the cerebro-spinal fluid is diffusion, aided by gravity.

The two drugs commonly used in this country are stovaine and novocaine. Novocaine is the less toxic drug of the two, is less irritating to the tissues, but it is also less potent than the other. Stovaine has a slight hæmolytic action, but it is more constant in action, more reliable, it is slightly antiseptic, and it can be sterilised by boiling. Stovaine has the disadvantage that it is decomposed by even a slight trace of alkali, so that you have to take care that your ampoules are made of the proper glass, that is, glass free from alkali, and that no alkali comes into contact with it when the instruments used for injection are sterilised by boiling.

Two solutions of stovaine are commonly used, the solution of Professor Barker, who did most of the pioneer work in this country on analgesia, consisting of a 5 per cent. solution of stovaine with 5 per cent. of glucose in distilled water, and a 10 per cent. solution in normal saline. This is called the "light solution," and the other is known as the "heavy solution." The specific gravity of the 5 per cent glucose solution at body temperature is 1·023, while that of cerebro-spinal fluid is 1·007. The other solution is very slightly heavier than the cerebro-spinal fluid; hence it acts mainly by diffusion. The heavier one, having glucose attached to it, is a viscid solution and diffuses, probably, very slowly as it gravitates down to the lowest part of the cord. Professor Barker carried out experiments *in vitro*, but they were not very convincing, because you cannot reproduce in a glass tube the processes that go on in the cerebro-spinal fluid in the body. But he did demonstrate that by adding some substance such as lactose or glucose to the stovaine, you could make that drug fall down to the lowest point of the spinal canal. He said that the processes by which the drug mixes with the cerebro-spinal fluid are mainly those of diffusion, and he argued that if gravity could be made to help and diffusion was slow, he could produce the effect he required with a smaller dose of the drug than if he used a solution which was less dense and diffused rapidly upwards and downwards.

You can use which solution you like, but I think the advantage of the heavy is that you do know that by the aid of the posture of the

patient you are able to do what you like with it: it behaves when injected in the way Professor Barker said that it would. If you put your patient into a certain posture so that a particular part of the spinal curve is the lowest point, you can make the solution fall to that point: it will not travel higher. It is a great advantage to be able to do that, and the principle also enables you to obtain, by means of this solution, practically unilateral analgesia. It is not always necessary to make both sides of the body completely analgesic and the musculature of both sides completely relaxed. In the case of amputation of a lower limb, for instance, it is unnecessary to have both limbs affected by the solution. You can demonstrate this unilateral action. You can, by putting your patient on the side which is to be operated upon, and allowing him to remain on it two or three minutes after the injection, and then turning him over to the other side, show that the dependent side becomes analgesic before the other, and that the muscles on that side are relaxed before those on the other. Therefore you can use the "heavy" solution with greater advantage and certainty than you can the "light" solution, which varies somewhat in its action; you cannot definitely say, even if you give the correct amount, that the desired results will be obtained. Therefore, to obtain the result you desire, you are tempted to use a larger dose than is actually necessary.

One of the criticisms you will hear against the use of Barker's solution is, that it is dangerous, because unless you keep the head and shoulders of the patient in a raised position there is a danger of this heavy solution finding its way upwards and so affecting the phrenic nerves and the vital centres. As a matter of fact it has been shown, clinically, that stovaine is fixed within a few minutes of its introduction, and that you can, three to five minutes after the injection, put the patient's head on the same level as the body, and in 7 or 8 minutes you can safely place him in the Trendelenburg posture, that is to say, a posture in which, if the drug were not fixed, it would gravitate to the head and involve the vital centres.

The duration of the analgesia varies with the dose used. As a rule, with the ordinary dose, you obtain 45 minutes of analgesia, sometimes an hour, sometimes even longer. Analgesia wears off from above downwards, so you have to remember that the upper part of the wound may be regaining pain-sensation when the lower part is still without it. The value of bearing that remark in mind is, that at the end of the operation, if pain-sensation is returning, the sewing must be from above downwards, rather than from below upwards. It is pretty sometimes—to the observer—to see the top stitch cause a little wincing, the second stitch less, and the third, fourth and so on pass unnoticed by the patient. The effects of a spinal anæsthetic pass off in the opposite order to that in which they appeared.

Now with regard to the preparation of the patient for spinal analgesia, it used to be said that it was one advantage of spinal analgesia that the patient could be fed almost up to the time of the actual operation, and could be fed soon after the operation. In some patients that is an enormous advantage. But it was soon found that there were objections to that practice. Firstly, it is not always possible to be successful with spinal analgesia; you cannot always make your injection, and sometimes when you do, it fails. With increasing experience, these failures become less. And it is not desirable in every case to have the patient conscious during th eoperation. To some, to be present at one's own operation is a great strain and is distasteful, and it is an added strain to some operators. You may need, in a particular case, to use a general anæsthetic so as to abolish consciousness. Another disadvantage of having fed your patient shortly before the operation is that the analgesia may be only partly successful, or the effect of it may wear off before the operation has been concluded, and you may have to resort to a general anæsthetic. So, on the whole, you will see that the best course is to prepare your patient as for general anæsthesia, and if, by reason of the feebleness or exhaustion of the patient, you think it advisable to give the patient a little more food than usual, you can give some beef tea, or glucose, or a little soup, perhaps, a couple of hours beforehand, but certainly no solid food. In hospital, patients should be prepared as they are for a general anæsthetic. Another disadvantage of having your patient's stomach full of more or less undigested food is, that vomiting may occur as a result of the analgesia.

Drugs may be given beforehand for highly nervous patients, especially women; I give morphine and atropine, or morphine and scopolamine. If no drug has been given, so that the patient is fully conscious, and perhaps rather

nervous, I think it is better for beginners to use some general anæsthetic before the injection is made; it gives the anæsthetist more confidence to know that the patient is unconscious, and it is also a help because the patient will not flinch when the needle is inserted into the skin.

As to the technique of the injection, of course you learn that chiefly in the theatre, but there are some points in connection with it which I wish to tell you about.

Above all, you must be, in all that you do, absolutely aseptic.

I have already mentioned sterilisation of the needle and syringe. If they are sterilised by boiling, you must have no soda in the water. The best way is to sterilise the instruments with spirit. My own practice is to leave them in spirit over night, if they are to be used on the following day.

Secondly, you must be certain of your anatomy. You know that the spinal cord extends to the lower border of the first, or the upper border of the second lumbar vertebra, where it terminates in the conus medullaris. The nerve roots of the cauda equina lie on either side of it, so that an injection made below the termination of the cord, and strictly in the middle line, will not do any injury to nerve trunks. Occasionally you will find that as you make your injection in the middle line, or as near as you can, the patient will complain of pain momentarily in one or other leg The obvious cause of that pain is that you have touched a nerve root: if you go in the middle line you are doing your best to avoid touching any root. To get your anatomical points, you will find that a line dropped between the highest points of the iliac crests crosses the fourth lumbar spine or the third lumbar interspace. You can make your injection in the second lumbar space, the third, or the fourth. Choose the one which looks the easiest, which has the greatest separation of the spines. You will generally find that the third is the space of choice.

There are two postures of the patient in which you can make your injection, either the lateral or the sitting posture. The sitting posture is often photographed in the text-books; it gives a fairly good separation of the spines. But it is not always very convenient. The first reason for this is, that patients who are ill are not always able to sit up on the edge of the table. The second reason is that the nature of the operation may prevent the patient bending forward to any extent, e.g., the presence of a large tumour. Thirdly, you will find there is a tendency for some people, especially elderly people, to feel faint if they have to sit up for any time, and particularly if morphia has been give to them beforehand Therefore I do the injection with the patient in the lateral posture, and it is well to get used to that.

Having put the patient on his side, and prepared the skin, you must get as much arching of the back as possible, and if the patient cannot do it himself, you must ask someone to help you by putting one arm under the patient's knees, and the other round his neck, and bending his back firmly. Sometimes considerable force has to be used to do that successfully, because patients vary in their elasticity, especially as old age creeps on, and also because the patient may have rather a big abdomen. Make sure that the back is sufficiently arched before the needle is injected.

If the heavy solution is being used, the head and neck must be kept raised above the level of the body.

Enter the needle in the middle line. That is one of the most important things in making the injection; the needle must enter in the median sagittal plane; otherwise you will not hit off the small space into which the needle has to go. The patient is warned that he will feel a prick and is asked to keep still; the needle is plunged in smartly, practically horizontally. As you push, you experience some resistance from the ligaments, and when you get to a depth of about 7 to 8 cm. you will feel another small resistance, which is quickly overcome. You then know you have entered the dura mater. It is seldom the patient complains when you enter the dura mater, although it is a sensitive structure. If the needle touches bone withdraw it slightly and incline it a little upwards or downwards and then push forward again.

The stilette of the needle is withdrawn when the dura has been punctured, and cerebro-spinal fluid should flow. It it does flow, connect the syringe containing the solution, and slowly and gently inject the fluid. If there is no flow—and sometimes there is not—one of three things may have happened. One is, that you may have failed to puncture the dura. That is the explanation of what is called a "dry tap." If you have a sharp needle and make a smart prick with it, you do not run that risk. Another reason, which is not so common, is that the

needle has become blocked. Replace the stilette and withdraw again; if the needle was blocked the fluid will come out. Or you may have gone through both anterior and posterior aspects of the dura; and then you will get no fluid. Therefore it is well to withdraw the needle a little, and see whether the fluid flows. If after trying these manœuvres you cannot get fluid, take the needle out and puncture again in a different place. The advantage of having an unconscious patient is now seen; a conscious patient would know, from the general atmosphere, that everything was not going well, and would have in addition experienced two or more sharp pricks.

Having made the puncture and injected the drug, withdraw the needle and apply a piece of antiseptic strapping or aseptic dressing. If the patient is going to be operated on on one side only, keep him lying on that side for two or three minutes, then turn him on to his back and keep his head raised, and start making preparations for the operation. If the operation is to be upon the abdomen, in which case you want both sides equally relaxed, then as soon as the injection has been made, turn the patient on to his back. The dose varies with age and condition of patient and nature of operation. The average dose is 5 cgm. stovaine, but for feeble or elderly patients I give $2\frac{1}{2}$—3 cgm. It is impossible to lay down definite rules, but remember to give less rather than more if you are in doubt.

Shortly after the injection, the patient feels warmth and tingling in the feet; and if you test the reflexes you find that the patellar reflex has gone, it goes almost immediately, and the plantar and cremasteric reflexes have also been lost. The legs begin to feel heavy, and soon they are completely paralysed for movement. Analgesia appears first of all in the perineum and scrotum, and it is important to remember that, because operation for hæmorrhoids, or on the penis or scrotum can be commenced much sooner after the injection than can operation elsewhere. Analgesia then appears on the under surface of the legs, then on the upper, and spreads gradually to the groins and the abdomen; in a case of high analgesia it may extend to the xiphisternum, and perhaps even higher. It is better not to test the onset of analgesia by a pin-prick, because patients are not always accurate in their answers, and may not distinguish between tactile and painful sensations. The best plan is for the surgeon, after the towels have been applied, to watch the patient's face for wincing or for any expression of displeasure when the towel-clips are applied. The upper towel clips, being placed at a higher level than the incision, are the important ones to watch.

About ten minutes after the injection pallor, perhaps yawning, and sweating may occur, and at the same time you will notice that the pulse-rate is getting less, and that the pulse is losing force. Often the face assumes an anxious expression. The pallor and yawning may be shortly followed by retching, or by vomiting. I remember one dramatic case, in which it was necessary to have the patient conscious, a bronchitic old man who was very ill with acute appendicitis. It was in the early days of spinal analgesia, when the head and shoulders were kept raised more than is the case now. Ten minutes after the injection he began to show signs of pallor, sweating, anxiety, the pulse rapidly slowed, and he said, "I am dying." A minute or so later he asked that a Priest be fetched, and he became unconscious. The condition was quickly relieved by lowering the head and shoulders. Vomiting temporarily relieves the condition, because it raises the blood pressure. The best treatment when these phenomena occur is to lower the head, if that has not already been done. If the analgesia is spreading so high and so rapidly that the expression is being affected and the pulse is slowing and losing tone, you must either raise the legs or put the patient into the Trendelenburg posture. Cessation of the respiration is not often seen: the best treatment, after you have put the patient into the Trendelenburg posture, is to squeeze the chest a few times until it returns. For minor degrees of faintness and collapse some stimulant may be given.

All these phenomena are due to one cause and one cause only, and that is, a fall of blood pressure. That is the chief reason I decided to give this lecture, because this danger of spinal analgesia is not sufficiently realised. These phenomena are due very little, if at all, to absorption of the drug. The fall begins shortly after injection, reaches its maximum in 25 minutes, and is then gradually replaced by a rise. I have held for some years that in all cases of spinal analgesia the anæsthetist should take the patient's blood pressure beforehand, and also during the progress of the analgesia. By taking the pressure beforehand one can find out whether the case is a suitable one for spinal analgesia. A considerable number of patients have lost their lives, not only in civil practice,

but also during the war, because they were given a spinal anæsthetic without any observation or record having been made of the blood pressure. It is obvious that if the fall in the blood pressure is the main danger in spinal analgesia, you must know what the patient's blood pressure is before you start. And although we know that spinal analgesia largely prevents shock, we also know that a collapsed patient does not tolerate any further lowering of his blood pressure. Sometimes a patient in this condition has been brought in and considered suitable for spinal analgesia because the operation to be carried out is a shock-producing one, and it has been thought that spinal analgesia will abolish or diminish the shock or tendency to further shock. An injection has been given, and the patient has died, perhaps within a few minutes. Therefore if the patient is shocked take the blood pressure first, and if it is low, 80 mm. Hg. or under, do not choose spinal analgesia.

Another advantage of taking blood pressure readings is, that they enable you to know, more or less, what is going on. No man can tell what is happening by merely feeling the pulse; blood pressure readings will tell you what is happening long before the most sensitive finger can give an indication.

A further advantage of taking these readings is, that patients who have a low blood pressure during operation do not bleed much, and it is impossible for the surgeon to say what amount of reactionary hæmorrhage there may be when the blood pressure rises again to its normal. It is by taking blood pressure observations over a series of cases that one can form an estimate of the probability of post-operative hæmorrhage. By so doing you will develop a kind of knowledge which will tell you when a patient is likely to bleed after operation. If you have this knowledge you can be of the greatest assistance to the surgeon in an operation such as prostatectomy. Reactionary hæmorrhage in old men is an extremely serious event; even if the patient does not die his convalescence is very much prolonged.

Spinal analgesia largely prevents shock, produces, as I have told you, complete muscular relaxation, and has no toxic action upon lungs, heart, kidneys and other organs. If you confine its use to operation below the umbilicus you will often find it invaluable; thus for bladder operations in the aged, severe pelvic operations, amputations in diabetics or the tuberculous, abdomino-perineal excision of the rectum, acute intestinal obstruction, and for cases in which general anæsthesia is more than usually dangerous. You must not use it in the presence of spinal disease or of low blood pressure; and you must be careful if you are dealing with a patient with a marked degree of arterio-sclerosis: pressure falls rapidly and recovers slowly.

There are some post-operative disadvantages of spinal analgesia. There may be severe and persistent occipital headache, sometimes with pains in the muscles of the back of the neck; the headache is said to be due to the lumbar puncture and not to the injection. I do not know what is the explanation, but it is a fact that very bad headaches occur after lumbar puncture for diagnostic purposes. According to some statistics, this headache occurs in about 10 per cent. of all the cases in which this form of analgesia is used. It is least severe when the patient is lying flat; aspirin, phenacetin, luminal relieve it.

Another complication which is more common than it is said to be in the text-books, is paralysis of the external rectus of one eye. It usually appears about the tenth day, and as a rule clears up completely although it may take some time in doing so. I have had three cases; they all recovered. Incontinence of bladder or rectum or of both may occur. I do not believe that it is often permanent, but while it lasts it is very unpleasant and annoying. I have not seen it myself and I have, fortunately, not had a case of incontinence of rectum, but one occurred in this hospital some years ago and lasted some time. These paralyses are less likely to occur in these days when doses are more carefully graded. Permanent patches of anæsthesia have been reported, usually co-existing with incontinence. With proper dosage and care in injecting, there is little likelihood of these serious after-effects following spinal analgesia.

As regards posture at the end of operation; remember that the head and shoulders must not be raised until the effect of the anæsthetic has completely disappeared. If the Trendelenburg posture has been used, see that the patient is lowered very gradually to the level. I have seen the blood pressure fall rapidly and syncope ensue from neglect of this precaution. If blood pressure is low place pillows on the trolley to raise the legs, and block up the end of the bed.

(Slides illustrating blood pressure curves were shown.)

Dental Notes.

The Endocrine Organs and the Teeth.

By A. E. Maclagan.

THIS paper is the outcome of one of Mr. Doubleday's lectures given last summer during his course on Materia Medica. At the time I was much impressed and fascinated by what he said, for he had presented what was to me an entirely new method of considering the development and pathology of the teeth. Since then I have endeavoured to ascertain for myself what connection there is between the endocrine organs and the teeth. To-night it will be my object to lay before you the views of certain contemporary authorities and allow you to form your own opinions.

I have divided my subject into two portions. First of all I shall consider it from the physiological point of view and afterwards pathologically. Owing to the large amount of ground to be covered and the short time available, I fear that I shall only be able to deal with my subject in a manner more superficial than the occasion warrants.

The word endocrine is used to describe those organs of the body yielding an internal secretion, the synonym hormone is much more familiar to all of us, but Prof. Swale Vincent objects to its use preferring internal secretion, which he defines as follows:—

"The preparation and setting free of certain substances of physiological utility—the raw materials of which are supplied by the circulating blood—by certain cells of the glandular type. The substances set free are not passed out on to a free surface, but into the blood stream."

The organs that are included in this category are the thyroid, parathyroid and thymus glands; the adrenal and pituitary bodies, the corpus luteum, they form what are known as the ductless glands. The liver, pancreas and reproductive organs—testis, prostate, ovary and the intestinal mucous membrane are all capable of producing an internal secretion and are included by Vincent in his work on the endocrine organs. Little that is absolutely definite is known about the origin, chemical nature, and mode of action of the secretions of these organs. The chemical constitution of adrenalin is certainly known with the result that many synthetic substances are being sold and the vendors in one case actually claim that their product is the superior of the real extract of the gland itself. Their mode of action is believed to be analogous to the action of nerves, i.e., augmentary or inhibitory. An augmentary hormone is exemplified by secretion which is the prime factor in causing the pancreas to secrete its digestive juice; an example of an inhibitory hormone is the internal secretion of the testis. When this organ has developed it acts as a calcium excretor, according to Matthews, and therefore prevents the retention of calcium in the blood. Waller associates the early sexual development of tropical races with their marked shortness of stature.

When considering the endocrine organs it would appear that their inter-relationship is of the greatest importance. Vincent says, "The view is now so prevalent as to be almost universal among clinical workers that derangement of any one of the ductless glands leads to a more or less evident disturbance in other members of the series. The phrase 'polyglandular syndrome' has become a commonplace of medical literature. And investigators in the fields of experimental physiology and pathology have been so impressed by cases where the internal secretion of one organ appears to stimulate another to activity that they have for the most part joined with the clinicians in regarding the organs of internal secretion as forming a system whose several functions are very intimately related to one another.

From that it is evident that it is quite impossible to lay down that the activity of any one gland is responsible for a specific pathological or developmental manifestation. The organs must be regarded as separate systems having a profound influence on the anatomical and physiological evolution of the body as a whole. Disturbance in the function of one gland will lead to a derangement more or less evident throughout the system.

When considering the question of the development of the teeth the factor of greatest importance is naturally that of calcium metabolism. Broderick considers that the glands most intimately associated with this are the thyroid, parathyroid and pituitary and thymus, which act as calcium absorbers, while the genitals act as excretors. It must again be emphasised that the

inter-relations of these glands is not yet thoroughly understood, and it is therefore impossible to give a definite or accurate account of their activity. To illustrate this, Marshall, in his "Ætiology of Dental Caries," states that Gis working on rats found that no change was noticeable in the dentition of rats whose thymus, thyroid and parathyroid glands had been removed; but that if only the parathyroids were removed the animals at once developed a dentition defectively calcified.

I will now run over brifly the functions of the glands just mentioned and also the adrenaline, as certain American authorities consider that they are also connected with calcium metabolism, although Swale Vincent does not attribute any such function to them.

The Thymus.

The thymus gland reaches its maximum development about two years and six months after birth and then gradually diminishes its activity until it commences to atrophy at about the period of puberty. Swale Vincent considers its function is to inhibit the growth of the ovaries and he considers that involution of the thymus is probably dependent on the growth of the sex glands. Other physiologists consider it to be a calcium absorber and find that if the thymus be removed the bony skeleton takes longer to develop, calcifying slowly and tending to hyperplesia. Teeth are similarly affected. Soli has removed the thymus from hens which have afterwards laid eggs without shells. Sagius, however, has a quite different view he considers that it controls the supply of phosphorus required by the body. He states that cells are produced in its substance which contain 4 per cent. of phosphorus in organic combination, which is afterwards utilised for the formation of calcium phosphate. As this gland is only present functionally during that period during which development is progressing at its maximum, the theory of calcium metabolism is certainly very plausible.

The Thyroid.

Kendall has quite recently demonstrated that the thyroid produces a substance known as thyroxin, an organic compound of iodine. The gland through its agency aids growth, morphological differentiation and all metabolic processes. As was the case with the thymus it is at its period of greatest activity during adolescence from which can be deduced its influence on the growth of the bony tissues. A point of special interest to us is that extract of thyroid can be used in cases of cretinism, where the normal dentition is either absent or feebly developed, to stimulate the growth of the jaw and the development of a normal dentition.

The Parathyroids.

In close anatomical relationship to the thyroid gland are found the parathyroid glandules. There are four of these glands whose size is approximately that of a pea. All authorities are agreed that they are directly concerned with the metabolism of calcium. Extirpation of these glands produces a condition very similar to tetany, a disease which is known to be due to parathyroid deficiency. One of the typical clinical signs noticed in persons who have suffered from this disease in childhood is the appearance of transverse furrows in the enamel; this is obviously due to faulty calcification. Further proof of the relationship of these glands to calcium metabolism is the fact that the administration of calcium lactate to those suffering from tetany relieves them of the more distressing signs.

The Pituitary.

The pituitary gland has a more complex anatomical structure than the glands already referred to and naturally its physiological function is much more difficult to understand. Morphologically it consists of two parts an anterior part which has been developed from epithelial tissue and a posterior which has been developed from the nervous tissue of the brain. The function of the anterior lobe is held by Vincent and Bandler to be connected with the growth of the body and the internal secretion of the posterior part with general metabolism. But Taylor, commenting on Sagius' work on calcium metabolism does not even mention the pituitary gland in this connection. However, the general opinion tends to the view that the anterior lobe helps in the control of the development of the body as a whole with special effect on the skeletal structure where it probably acts as phosphorus retainer. The posterior lobe secretes a hormone which acts on the heart, blood vessels, the involuntary muscle of the uterus, bladder and the intestine and stomach, and on the kidneys and mammary glands. I have been unable to find any other definite references to the effect of the pituitary

on the development of the teeth, but shall refer to it again when considering the pathological aspect.

The Adrenals.

I have been unable to discover any reliable reference that would connect the secretion of these bodies with the devolopment of the jaws and teeth. There is, however, great diversity of opinion on the function of these glands, and as nothing is definitely established I will not mention them further except to read you a summary from Bandler where one or two references will be made to a possible connection between the adrenal bodies and the teeth, but I make no comment as this is the only reference I have found.

The Reproductive Organs.

It may appear somewhat far fetched to connect these glands with development of the teeth. However, it has already been stated that involution of the thymus depends on the development of the testis and ovary and accepting the view that the thymus partially controls the development of osseous tissues—the connection is obvious. It would therefore appear that the attainment of sexual maturity at an early age would interfere with the calcification of the teeth. As we have already seen castration has a marked effect on the development of bone—which increases in weight and length after such an operation; surely the teeth also composed of osseous tissue participate as well, in such changes; one can remember learning that secondary sexual characteristics were supressed by castration so that where canine teeth acted as sexual weapons after castration they were either missing or appeared as stunted structures.

An American dentist commenting on the views of Englebach and Tierney that disturbance of the reproductive organs is associated with the absence of the incisor teeth states that two of his patients, who had missing canines, had also a history of ovarian trouble. On operation, the canine in one case was found embeded in the palate while in the other case it was found in relation to an odontoma, this presumably a dentigenous cyst.

The old biological view that growth and sexual activity are antagonistic to one another because the demand on the parent for the purposes of reproduction was too great to allow the maintenance of normal nutition and development of the parent's body; is not now acceptable to certain physiologists. They hold that the reproductive organs acting as calcium excretors inhibit the growth and metabolism of the body. Vincent, in his book, gives prominence to the view that the presence of functional testes is inimical to the growth of bone.

Before going on to the next aspect—the pathological one—I should like to read you Bandler's list of observations to be made in connection with the teeth when diagnosing endocrine activity:—

A good firm lower jaw suggests the gland that produces acromegaly—as does spacing of the teeth.

Regular teeth imply balance between the anterior and posterior pituitary.

High arch and crowded teeth suggest over activity of the posterior pituitary.

Yellowish colour of teeth calls attention to the adrenal cortex.

Teeth crowded together with a high arch means relatively more posterior than anterior pituitary.

Absent, abnormal, or small lateral incisors, speak for abnormal or poorly developed sexual glands and internal genitals.

Thyroidal teeth are firm and white with good enamel and having a transparent bluish tint.

In anomalities of the thyroid, thymus and parathyroid because of calcium disturbances, there is poor enamel and with the parathyroid disturbances there may be lateral erosions of the enamel.

Adrenal cortex plays a part in the growth of body and bones.

Adrenalin diminishes the elimination of calcium.

The parathyroids regulate calcium metabolism and the calcium contents of the nervous system.

The thymus aids assimilation of calcium.

The thyroid and pituitary aid in regulating the elimination of calcium.

Adrenal teeth are often dark with a tinge of yellow or green.

Long pointed canines indicate a fighter or scrapper and are to be referred to the adrenals —short small canines the opposite.

Wisdom teeth in their characteristic eruption and date of eruption are probably related to the anterior pituitary.

I now come to the pathological aspect and shall first draw your attention to three conditions well known in medicine, but also affecting the teeth. Englebach considers that abnormal functions of the pituitary gland should be divided into pre-adolescent and post-adolescent

and these again into hypo and hyper. Thus we have four possible conditions, two of which are said to affect the teeth.

Post-adolescent hyperpituitarism or acromegaly is a disease affecting the bones. Those are the short and flat bones only as opposed to the overgrowth in pre-adolescent hyperpituitarism which affects all the bones and results in giantism. The bones of the skull become much enlarged, so also do the air sinuses; the chin usually becomes square, but may be more pointed, and usually there is marked prognathism. The separation of the incisor teeth is a constant feature and often they project beyond the upper incisors; the tongue becomes enlarged and causes deformities of the alveolus.

Pre-adolescent hyperpituitarism affects all the bones and results in giantism. The same features are seen in regard to the head, jaws and air sinuses. The incisor teeth are enlarged and often separated. The patient's mentality is said to be apathetic, in contrast to the post-adolescent type where the mentality is normal.

Thyroid insufficiency causes delayed dentition and also prolongs retention of the deciduous series. Myxœdema, a disease associated with atrophy of the thyroid, causes the teeth to become brittle and carious. A case is commented on by Prosser in the "Dental Cosmos," where in one year the crowns of the teeth were so worn that they were reduced to one half their usual size. Tetany is due to the lack of floating lime caused through parathyroid deficiency;. the markings on enamel have already been mentioned; other characteristics of this disease are the tonic spasms of the muscles especially of the muscles of the face. Trismus is a feature; in fact, the spasms of muscles supplied by the facial nerve is considered as reliable diagnostic evidence of tetany.

In the "Dental Cosmos" of 1922 Dr. Pollina, of Boston, had an article entitled Endocrinodontia; the *British Dental Journal* does not comment on the substance of the article, but merely acknowledges the coinage of a new word in dental literature.

He considers that dental caries is the result of the infectious diseases of childhood reflecting upon the endocrine organs, and goes on to say that a perfectly clean tooth decays, for the main predisposing cause is within the tooth, an internal one, not an external one. He bases his theory on his examination of 6,000 children between the ages of 3 and 16 years. He found that 11 per cent. had never suffered from any form of childish fever and they had good well-developed arches and no caries, while the remaining 89 per cent. had all suffered from one or more of these fevers and malocclusion and caries were constant features.

His argument is that chicken-pox, measles, scarlatina, etc., etc., upset the whole body, and therefore the endocrine organs. All the secretions, for instance, those from the mouth, alimentary tract, liver, pancreas, dry up. There is a general wasting away of tissue throughout the body, the osseous tissues not excepted. The fæces and urine, if examined, show great quantities of calcium phosphate present which he considers is largely derived from the teeth, owing to the process of decalcification which always follows these fevers. The glands only recover their power to function in proportion to the intensity of the fever. Teeth in the process of calcification and development must necessarily be affected and they show it by delayed eruption and further by pitting, fissures and hyperplasia when fully erupted. It is not difficult to realise that these teeth are easy prey for the decalcifying agents found in the mouth, acid and bacteria, and that their chance of escaping caries is poor. In this connection it is interesting to note that Mr. Broderick has shown that the saliva of persons suffering from these fevers is much less alkaline than that of the normal individual and its power of neutralising the normal acids of the mouth is diminished. Under such conditions it is wonderful that we have any teeth left.

Mr. Broderick suggests that the predisposing cause of caries is a diminution of the calcium utilising power of the body brought about by a want of balance in the secretions of the ductless glands causing a more or less acute calcium starvation of the tissues, one result being a lessened alkalinity of the saliva, thus removing its power of neutralising acid at the moment of its formation.

Caries of the enamel is due to two causes, one predisposing, the important one, and the other the exciting cause. The first of these is by no means thoroughly understood, the text books broadly account that the predisposing causes of dental caries can be found under one of the following headings:—

(a) Faulty structure.
(b) Diet.
(c) Lack of cleanliness.

Broderick has put forward one or two very strong points which cannot be accounted for

by these theories: Lactic acid is the chief exciting cause of caries; we all eat carbohydrate food, the chief source of the acid, and yet there are many old people who have never suffered from caries and whose mouths on examination present perfect dentitions. Do any of the above account for the susceptibility of the six year old molar to caries? Why is caries so prevalent in the young especially at the period of puberty? Why does it diminish as we grow old? and again the teeth of young women are more carious than those of men.

Professor Pickerill's experiment on saliva is doubtless known to you as well as his theory of continued calcification after eruption has taken place. His experiment shows that lactic acid will continue with the salivary salts much quicker that it will the salts of the enamel; therefore, so long as there is an adequate supply of calcium in the saliva the enamel will escape the attacks of the acids formed in the mouth. From what has already been said it is clear that calcium metabolism is dependent on the ductless glands and the calcium content of the saliva is in turn dependent on calcium metabolism. The severe exanthematous fevers of adolesence cause a complete constitutional upset and as already stated these glands function is impaired with the result that the alkalinity of the saliva is lessened. Experiments proving this have been carried out at Birmingham by Mr. Broderick to show the effect of scarlet fever and measles on the alkalinity of the saliva and to record the change taking place in the calcium index of the patient. He found that the saliva of the control required 5·4 c.c. of acid to neutralise it while that of the patients required 1·6 to 1·9 c.c. of acid, the patients were then given a glandular preparation containing extract of pituitary—thyroid and adrenal—the amount of acid required to neutralise the saliva after the course rose from 1·6 to 2·8 and 1·9 to 3·6 showing of course an increased alkalinity. Mr Broderick himself contracted scarlet fever and he carried out the experiments on himself, raising his calcium index from 0·3 to 82·5 in less than a fortnight. Surely this shows that the administration of phargland helped to make good the loss of calcium owing to the upset to glands and that his suggestion that the prevalence of caries in youth is in some measure attributable to these fevers and consequent upset to the glands. It is only common sense to state that enamel surrounded by saliva deficient in free alkali must be more readily attacked by the lactic acid in the mouth than enamel whose bath contains an abundance of calcium salts.

The same worker found another connection between the alkalinity of the saliva and caries. Using a patient whose saliva was normal—that is the alkalinity figure was 6·8—he administered a gland preparation of parathyroid—pituitary—and adrenal for a period of seven weeks during which time the alkalinity was increased to 10. The interest of the case lies in the fact that a carious cavity in his upper first molar extending deeply, but not exposing the pulp. At the commencement of the course the dentine was soft and sodden but at the end of the treatment had become quite hard and dark and appeared to be in a condition similar to arrested caries.

Before expounding his views on this phenomena just a word on calcium for the last time: This is not only found in the tissues as a fixed element of bone and teeth, but also in a dissolved state loosely combined with the chloride and phosphate of the blood. It has various physiological uses and its presence in this state is necessary for the maintenance of life. Should the external supply of lime be deficient for normal purposes the body calls on the bones to give up part of their fixed lime which is broken down and used as required. This has been proved by the experiments on rabbits which were fed on a calcium free diet and yet excreted the same amount of calcium as the control; during starvation the skeleton diminishes in weight. Broderick suggests that osteomalasia, a disease characterised by softening of the bones may be due to such demands, but Swale Vincent considers it to be due to hyperfunction of the ovaries. I am leading up to Broderick's other suggestion that the teeth are also called upon to sacrifice their lime salts for the general well-being of the body. The bones may later on, when the amount of lime is again sufficient for all purposes, regain the lost calcium, but the teeth are not so fortunate. Dentine, he considers, is able to reabsorb the calcium and harden to a state of hypercalcification, but the enamel cannot, as its developmental mechanism has long disappeared. By this means Mr. Broderick would account for the phenomena of arrested caries. Carious destruction of tooth substance normally proceeds by the destruction of a minute area of enamel. This extends deeply into the denture, but not proportionately in the surrounding enamel, so that in time a large area of enamel

is undermined owing to the destruction underneath of the denture, in other words there is only a small amount of enamel destroyed, but a large amount of denture which is not exposed to the stress of mastication. In arrested caries this is not seen. Here a large hardened area of dentine is exposed to the full strain of mastication and devoid of enamel. Very often it has become eburnated showing how hard it has become. Again, consider a child with measles. The glands do not provide the necessary calcium, owing to their loss of function the bones and teeth give some of theirs up, the enamel perhaps, by outward osmosis, the dentine inwards via the pulp. The extent of such sacrifice would be proportionate to the severity of the attack; it might be that the enamel is practically all destroyed; the dentine, owing to its organic matrix would still retain its form. As the patient gets well and the mechanism of the body returns to normal, the glands now provide a plentiful supply of lime salts and repair of bones takes place the denture become recalcified, but as there is no enamel organ it is impossible for the enamel to be repaired. It may be that the hardness of such dentine is accounted for by the fact that it has in the course of repair appropriated the salts meant for the enamel; at all events it furnishes a very excellent substitute for the lost enamel.

I fear, Mr. President, that this paper has been of little practical value, but one hopes that in a very short time the functions of the endocrine organs will be as well understood as the function of the lungs, and when that time arrives new methods of considering and treating disease will be evoked which shall have a direct bearing on dental surgery as well as the other branches of our profession; it is for that reason, sir, that I have endeavoured to direct the attention of the members of this Society to the Endocrine Organs.

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Dentistry and General Health.

DEAR SIR,—In the article on Dentistry and General Health which appeared in the previous issue of the GAZETTE, Mr. Bull states:—

"Before the teeth of the nation are in anything like a passable condition, it is essential that in some way or other the individual should be made to feel that it is as criminal an action to have, not only faulty teeth, but a faulty tooth in his or her mouth as it is to commit a felony."

A felony is a crime which involves a total forfeiture of land or goods (or both) and to which capital or other punishment may be superadded, according to the degree of guilt. (Common Law).

In view of the serious nature of the crime, it would be necessary that certain points of the law should be made clear to the public. For example, at what stage in the decay of a tooth a person could be charged with felonious intent; whether at the initial disintegration of the enamel or whether the penalty of the law could be evaded until a clear case of root infection had been proved.

In the case of young children presumably the parents would be held responsible for "inciting to crime,', and in the case of elder children for "aiding and abetting."

An alveolar abscess would probably be dealt with in the Higher Courts, but if there were no previous convictions, an impressionable jury would no doubt exercise leniency in such cases.

The dentist would have to exercise more than ordinary care in condemning a tooth, as an error in diagnosis might lead to an action for libel with defamation of character.

It would be interesting to know what would be the position of a person who was edentulous and who refused to wear the artificial sets provided by his Board of Guardians; the charge might be "being in possession of gums with no visible means of support," although "extenuating circumstances" might be pleaded if the plates were a misfit and would not remain in position.

The idea might be extended to other branches of pathology and the attitude of the law towards a person with enlarged tonsils sugggests great possibilities.—Yours faithfully,

E. R. BAILEY.

15th February, 1925.

Eye Complications in Acute Fevers.*

By W. J. LINDSAY, M.A., M.D., B.C.Cantab.

THE ocular lesions of the acute specific fevers are many, but fortunately, for the most part, of infrequent occurrence. Their severity and, in some cases, their onset, bears a direct ratio to the severity of the primary disease. Some of them are likely to be overlooked by the practitioner, his attention being occupied by other aspects of the disease, while the onset of others is delayed till the case has apparently recovered and has passed out of his hands. Taking first those infectious diseases of commoner occurrence, we find that occasionally the ocular lesions have serious consequences; in a few these affections are trivial.

Measles.

Measles frequently affects the eye and may have serious consequences, whether in the acute or convalescent stage. The toxin appears to have a special predilection for the tissues of the eye. The skin of the lids shares in the general rash and may be a little œdematous.

Conjunctivitis is one of the earliest symptoms, and may be present before the eruption appears; usually it is moderately severe. There is hyperæmia of the conjunctiva with lacrymation and redness of the margins of the lids. Occasionally it is muco-purulent, and is always accompanied by a greater or lesser amount of photophobia; it usually passes off before the skin begins to desquamate.

Bathing with warm boric lotion frequently and a little boric ointment smeared along the edges of the lids night and morning usually suffices.

Photophobia may be very troublesome in some cases; it will generally yield to bathing with warm boric lotion containing sulphate of zinc (2 gr. to 1 oz.), and if necessary a drop or two of a solution of atropine sulphate 1 per cent. night and morning.

The acute may be followed by chronic conjunctivitis, which is often refractory, but which will usually clear up under the ordinary treatment of that condition. Keratitis and corneal ulcer, including the ulcus serpens, occasionally are seen in the acute stage; usually they are discovered after the acute stage. They should be treated with warm boric bathing and atropine. The eye should not be tied up if there is any muco-purulent discharge. The ulcus serpens is such a serious lesion that it will be dealt with separately later.

Fuchs describes two forms of severe conjunctivitis in measles. One, the less severe, causes an exudation—which becomes membranous—on the surface of the conjunctiva of the lids; this form he calls "croupous." In the second form there is an interstitial infiltration of the tissues in the substance of the lids; he calls this form "diphtheritic." His nomenclature is unfortunate, because clinically identical conditions occur in diphtheria, will be referred to under that disease, and are due to the Klebs-Löffler bacillus. The lesion in measles is caused by the streptococcus and is in no way connected with diphtheria. We will refer to these two forms as exudative and infiltrating.

The chronic conjunctivitis, already referred to, may involve the margins of the lids, producing *blepharitis*; this is often severe, and nearly always very resistant to treatment. It results from infection of the hair follicles and sebaceous glands by the staphylococcus, and because the cocci are embedded deeply in the follicle or gland, where external applications do not reach them, the lesion may persist for months or years in spite of all treatment, and in some cases it is cured only by injection of autogenous vaccines. As a rule, however, it can be cured by alkaline or astringent lotions such as sodii bicarb. (3 gr. to 1 oz.) or boric lotion containing zinc sulphate (1 or 2 gr. to 1 oz.). A mildly antiseptic ointment such as ungt. hydr. ammon. dil. should be smeared along the edges of the lids. Too vigorous treatment with strong lotions, etc., may aggravate or prolong the lesion.

Phlyctenulæ are very frequent after measles; they are considered by many to be a pretuberculous symptom, and are always an indication that the patient's general resistance is lowered. They are seen most frequently at the limbus. When on the bulbar conjunctiva they cause

* Fellowship of Medicine Lecture at the Royal Eye Hospital.

little inconvenience to the patient, but on the cornea they are a serious lesion, causing corneal ulcer, which may go on to perforation or degeneration of the eye, and in any case they leave corneal nebulæ, which may be extensive and permanently depreciate the vision.

Treatment should be frequent bathing with warm boric lotion, atropine drops or ointment (1 per cent.) twice a day, and a mildly stimulating ointment, such as ungt. hydrarg. ox. flav. dil. (2 gr. to 1 oz.) placed inside the lower lid of the eye twice a day. The yellow oxide ointment of the B.P. is 10 gr. to 1 oz., and is too strong and irritating. The eye should not be tied up as a rule, but a frontal shade or dark glasses are a great comfort. In addition, tonics containing iron should be given; cod-liver oil with malt, good food and plenty of fresh air are very important aids.

Squint follows measles with about the same frequency as it follows whooping-cough and is due to the same cause—depreciation of the general health in a patient already predisposed to squint.

Weakness of accommodation is frequently caused by the debilitating effect of the illness; it is temporary, and soon passes off as the general health improves.

Lesions of other parts of the visual system have been recorded; they are rare, and usually appear so late in the disease or during convalescence that the general physician seldom sees them. Several cases of *optic neuritis* and some of *optic atrophy* have been reported; nearly all have been accompanied by symptoms which suggest meningitis. A few of them may have been the result of meningitis caused by middle-ear suppuration. Optic atrophy of course means blindness.

Rubella.

The only ocular affection which occurs is a slight conjunctival catarrh, characterised by some hyperæmia with slight lacrymation. I have never seen it amount to a muco-purulent discharge, and there is no photophobia.

Treatment.—Bathing with warm boric lotion is all that is required.

Varicella scarcely ever affects the eyes. One or two cases of corneal ulcer with hypopyon and about the same number of cases of optic neuritis have been reported.

Scarlet Fever.

The skin of the lids is involved in the rash. A catarrhal conjunctivitis, usually not of a serious kind, may be present; it generally clears up quickly. Ulcus serpens may occur in severe cases. Orbital cellulitis is rare; it is usually the result of metastasis. Panophthalmitis may result from a perforated corneal ulcer or from purulent choroiditis, which also arises from metastasis. Many cases of sudden blindness are on record; the amaurosis has continued from 4 to 14 days; it is often accompanied by convulsion and coma and is due to uræmia from scarlatinal nephritis. There may or may not be albumin in the urine, and there may or may not be retinitis albuminurica. These cases of blindness usually recover their sight, and when albuminuric retinitis is present, the prognosis is less grave than when the retinitis is due to chronic interstitial nephritis.

Optic neuritis has been seen but it is nearly always secondary to otitis media; so, too, is the suppurating *choroiditis* described by Fuchs. *Weakness of accommodation* may be very persistent in the convalescent stage. A very common sequela, which often long delays the patient's discharge from a fever hospital is *chronic dacryocystitis.*

Smallpox.

Smallpox in prevaccination days was the most prolific cause of blindness, being responsible for one-third of all cases. Thus before the introduction of vaccination it caused 35 per cent. of all cases of blindness in France and Prussia; after vaccination the percentage fell to 7 per cent. and 2 per cent. respectively. At one time I had the opportunity of seeing a large number of smallpox cases during a rather widespread epidemic in an industrial town. On the skin of the lids the vesicles appear, especially at the margins. *Muco-purulent conjunctivitis* is frequent, and in my experience was constantly present in the confluent cases. *Subconjunctival hæmorrhage* may appear, and I think always does in hæmorrhagic cases. *Vesicles on the conjunctiva* also appear, but not on the cornea as used to be supposed. When, however, a vesicle appears at the limbus the neighbouring cornea is deeply infiltrated, and may ulcerate and be destroyed. *Corneal ulcer* is usually very serious. It is the ulcus serpens which often appears in the drying or convalescent stage; it generally begins with the infection of a small corneal abrasion. In the epidemic referred to above not more than 3 or 4 eyes were lost from the panophthalmitis, so far as I remember, although corneal nebulæ were more numerous.

Iritis, orbital cellulitis and *suppurative choroiditis* may occur, all probably due to metastasis. Further, the disease may be followed by *spots of atrophy in the iris.*

Vaccinia.

Vaccinia sometimes produces *dermatitis of the lids* and face. *Phlyctenulæ* may follow. *Vaccine vesicles on the lids* may arise from accidental inoculation from the arm or, as may happen to the physician while performing vaccination, a splinter from the glass capillary tube containing the lymph may fly into the eye. The vesicles are seldom harmful, but the resulting ulcers may produce cicatrization. The vesicles are usually found at the angle of the lids; they begin about the 4th day after inoculation with itching and œdema of the lid and face; the conjunctiva is chemosed, and the preauricular gland enlarged. The affection usually subsides in 8—12 days.

Corneal ulcer may arise after the acute stage has passed; it usually clears up, leaving only a slight opacity. In other cases there is severe inflammation with hypopyon, followed by a dense corneal opacity.

Enteric Fever.

This disease seldom affects the eyes. Adamuck, of Petersburg, reported an epidemic of 1,138 cases, in only 32 of which were the eyes attacked. *Conjunctivitis*, sometimes mucopurulent, may occur during the acute or, more often, the later stage. But the most common affections of the eye appear in convalescence; they are weakness of accommodation and enophthalmos from absorption of the orbital fat.

Among the lesions—all rare—reported from time to time are keratitis, embolism of the retinal arteries, thrombosis of the orbital veins, optic neuritis and atrophy, paresis of ocular muscles, and purulent choroiditis.

Typhus.

Corneal ulcer—the ulcus serpens—is sometimes found. *Iritis* from metastases, *orbital cellutitis, optic neuritis* and *panophthalmitis* have all been recorded.

Relapsing Fever.

Relapsing fever causes a special form of *ophthalmia*, which begins as an inflammation of the choroid and ciliary body, spreading thence to the vitreous and causing iritis and scleritis. It arises from deficient feeding and care in the convalescent stage, and is seen weeks or months after the acute period has passed. Recovery is slow, and occasionally it produces blindness.

Diphtheria.

The most common ocular lesion in diphtheria is paralysis of ocular muscles. The paralysis usually appears in the 2nd, 3rd or 4th week, but it may appear as early as the 1st week or as late as the 7th; it usually follows soon after paralysis of the soft palate. Generally the ciliary muscles are the first paralysed and may be the only ones affected (*ophthalmoplegia interna*). The condition is recognised by the patient's inability to focus for near objects, and by the dilated, immobile pupils. The extra-ocular muscles may also be paralysed, and of single muscles the most frequent is the external rectus. Exceptionally one or both internal recti are affected, and most infrequent of all is the levator palpebræ. Other muscles are rarely affected individually, but there may be complete paralysis of all the extra-ocular muscles (*ophthalmoplegia externa*). When this latter is combined with paralysis of the ciliary muscle the condition is known as *ophthalmoplegia totalis*; the eye is immobile and the pupil widely dilated. The paralysis recovers in from 1 to 2 months and may follow very mild attacks of diphtheria. *Acute ophthalmoplegia,* when it occurs, develops in a few days. It is usually accompanied by drowsiness, is of central origin, being due to an inflammation in the region of the nucleus of the 3rd nerve. Recovery usually follows.

Purulent choroiditis is occasionally seen.

Corneal ulcer from diphtheritic conjunctivitis is severe; it is purulent, rapidly destroying the cornea, causing prolapse of the iris and staphyloma. The infiltrated tissue disintegrates very rapidly; the ulcer, compared with its gravity, appears slight. The prognosis for sight is bad.

Diphtheria of the conjunctiva is seen most frequently in those countries where diphtheria is rife. It is especially liable to accompany pharyngeal diphtheria, and in cases where the nasal mucous membrane is affected it seems to be frequently acquired from other patients similarly affected. The lesion can also arise from direct infection, as when the patient coughs in an attendant's face. It is more frequent in children than in adults, since immunity to diphtheria increases with age.

The lids are swollen, tender, painful, and can be separated only with difficulty; the pre-auricular gland is enlarged. It occurs in two forms, which are clinically identical with a similar condition produced by the streptococcus in measles, save that here the causal organism is the Kleb-Löffler bacillus. In the *exudative* form, called by Fuchs croupous, exudation is poured out on the surface of the conjunctiva lining the lids, forming a greyish-white membrane which can be pealed off, leaving a swollen, inflamed, bleeding surface; it quickly re-forms. The membrane consists of coagulated fibrin enclosing in its meshes, pus and epithelial cells, bacilli, etc. It is the milder form, and disappears in from one to two weeks, doing no permanent damage to the conjunctiva.

The infiltrating form, Fuch's' diphtheritic, is much more serious. The exudation coagulates in the substance of the tissue and compresses the vessels; the mucous membrane therefore becomes bloodless and readily necroses. The infiltration stage lasts from 5 to 10 days and gradually disappears. When the infiltration is not very dense it is absorbed with a great increase of muco-purulent discharge; when it is very dense the conjunctiva sloughs in places, cicatrization follows, causing perhaps contraction of the conjunctival cavity and deformity of the lids. The infiltrating form is very serious for the cornea. The greater the extent of conjunctiva affected the more likely is corneal suppuration to follow. Where the entire conjunctiva is infiltrated and rigid the cornea will probably be destroyed.

Treatment consists in prompt injection of antitoxin serum, and some serum may be dropped into the conjunctival sac. Locally, frequent washing out the conjunctival cavity with weak antiseptic lotions—potass. permang. (1—8000), hydrarg. perchloridi (1—5000); and a solution of quinine (4 gr. to 1 oz.) is highly spoken of. Warm compresses must be used. After the membrane separates, if the mucous membrane is congested and swollen, with much muco-purulent discharge, drops may be used—silver nitrate 1 per cent., protargol 10 per cent., or collosol argentum—and these may be continued while the mucous membrane is swollen and discharging, but must be stopped at once should the membrane re-form, a return being made to antiseptic lotions. In the infiltrating form, when partial necrosis begins, one tries to prevent adhesion by frequently drawing the lids away from the globe, and by inserting pledgets of cotton-wool, soaked in liquid paraffin or other neutral oil, between bulbar and conjunctival surfaces.

This disease causes many ocular complications, some serious. It seems to have the power of producing exacerbations in pre-existing chronic diseases of the eye. The eye complications of influenza have been placed in two groups—nervous and inflammatory. In the nervous group, a quite early symptom is *painful ocular muscles;* any movement of the eyes causes discomfort, and the patient tries to avoid it by lying with his eyes shut. *Neuralgia* in various forms is frequent about the eyes, particularly the supra-orbital form, probably due to irritation of the nerve-endings of the fifth (trigeminal) nerve in the inflamed mucous membrane lining the nose and its accessory sinuses. *Weakness of accommodation* occurs, and its sudden onset is especially likely to affect and alarm those approaching the presbyopic age and those who are already presbyopic. *Paralysis of ocular muscles* is not common, but is seen from time to time.

Squint follows in patients who have a tendency to that disability. *Optic neuritis* affecting one or both eyes occurs in some cases; it comes on usually between the 3rd and 4th days, and is preceded by pain in the region of the eye. In the inflammatory group one of the earliest symptoms is a *catarrhal conjunctivitis,* probably due to extension of inflammation from the nasal mucous membrane. This symptom was very noticeable in a London epidemic about three years ago. *Blepharitis, blepharospasm* and *phlyctenulæ* are often seen. *Corneal ulcer,* in the form known as herpes cornea febrilis or as dendritic ulcer, is fairly frequent; both forms are either a true herpes of the cornea, or are closely allied to it. *Iritis* is an occasional complication. There is a special tendency in influenza to sinusitis, and this is liable to cause *orbital cellulitis,* with its consequences. When *tenonitis*—inflammation of Tenon's capsule—occurs, its symptoms are œdema of the lids, chemosis and proptosis; as a rule, the chemosis is greater in tenonitis than in orbital cellulitis. *Thrombosis of the central vein of retina* is usually the result of spread of inflammation, and in influenza the prognosis is said to be fairly good.

Acute ophthalmoplegia is reported as occurring in influenza. It is probably here confused with encephalitis lethargica. Amongst

the other ocular affections seen in this disease are *purulent choroiditis* occasionally. *Retinal hæmorrhages* are fairly frequent from the altered conditions of the blood. Inflammation of the retina in a form known as *retinitis stellata* is sometimes seen; it resembles retinitis albuminurica, but without albumen in the urine; there may be slight optic neuritis, and usually some pain in the head. Such cases generally recover, and are helped by sodium salicylate. Lastly, influenza may precipitate an attack of acute congestive glaucoma.

Encephalitis Lethargica.

This disease has been rescued from the scrap-heap of influenza. First recognised in Buda Pesth, in 1917, it was in Vienna in 1918, and thereafter was reported pretty generally all over Europe. One variety is an inflammation of the base of the mid-brain in the neighbourhood of the third nerve nucleus, and has many resemblances to the polio-encephalitis acuta hæmorrhagica superior of Wernicke. The ocular symptoms are chiefly *weakness of accommodation and paralysis of the ocular muscles,* producing *ptosis* and *diplopia.* During the epidemic which prevailed in London this spring about 40 to 50 patients thought to be suffering from the disease were seen at this hospital. We found the predominating symptom was diplopia, which lasted 1 to 4 weeks. Most patients gave a history of "influenza" two or three weeks before the onset of diplopia.

All the cases cleared up under treatment with hexamine, sodium salicylate and pot. iod. An account of the epidemic as we saw it was published in the *Lancet,* 1924, i, p. 1260, by Mr. C. W. Yow, Registrar and House-Surgeon to the Hospital.

Cerebrospinal Fever.

This disease causes *oculomotor paralysis* and sometimes slight *nystagmus; optic neuritis* is rare and *optic atrophy* may follow. *Panophthalmitis* has been reported in some cases.

Erysipelas.

Facial erysipelas may seriously damage the eye. Both lids as a rule are involved; there is uniform redness and swelling; if local infiltration is present an abscess generally forms. The skin of the lids may become discoloured and blackened, going on to gangrene; inflammation may spread to deeper parts, causing *abscess of lids* or orbit, and reaching the cranial cavity may give rise to meningitis and death.

Treatment: Incise an abscess of lids, and try to prevent cicatrization or deformity by sewing the margins of the lids together in two or three places. Later a plastic operation may be necessary. In some cases the inflammation may be slight, but a persistent doughy swelling of the lids remains, with occasional recurrence of the inflammation; this is the condition known to dermatologists as *erysipelas perstans.*

Orbital cellulitis is not infrequent from extension of inflammation. *Thrombosis of the orbital veins* may extend to the central retinal vein. *Thrombosis of the cavernous sinus* follows the spread of inflammation backward through the superior or inferior ophthalmic vein. *Iritis* and *purulent choroiditis* may occur from metastasis.

Whooping-Cough.

Whooping-cough occasionally causes subconjunctival hæmorrhage from strain. Phlyctenulæ may appear on the conjunctiva or cornea. Very exceptionally iritis and optic neuritis have been reported as well as one or two cases of *transient blindness.*

The most important lesions are sequelæ. Phlyctenulæ are not infrequent; dacryocystitis has occurred in a few cases; weakness of accommodation follows in this as in other debilitating diseases. Most common of all, perhaps, is *squint.* This is due to the toxin having lowered the resisting power and general muscular tone in a patient already predisposed to squint; the debilitating effect may possibly be increased by fright produced in little patients by the paroxysm of the cough.

Mumps.

Mumps occasionally causes a plastic iritis; in about 50 per cent. of such cases there is facial paralysis, and sometimes the lachrymal, other salivary and lymph glands are involved. Nodules, of a grey, yellowish or brownish-red colour may appear in the iris. The glandular disease clears up, but the eye is severely damaged and may become blind. Orbital cellulitis also occurs by extension of the inflammation from before backwards, it is particularly liable to complicate suppurative parotitis.

Optic neuritis has been recorded.

Keratomalacia.

Keratomalacia is a degeneration of the cornea and conjunctiva due to malnutrition from bad feeding, and particularly, it would seem, from food deficient in fat-soluble A vitamin. The debilitating effects of a severe attack of measles or scarlet fever, coupled probably with an absence or deficiency of fat-soluble vitamin, seems also to be a cause of this condition. It was specially prevalent during the later part of the war and in the years after the war in Austria and other central European countries when there was actual lack of food, or when food was difficult to obtain owing to the chaos produced by the collapse of currency. The disease has been very common in Vienna during the last two or three years. The chief features are an apparent dryness of the cornea and conjunctiva, the whole surface looking as if it had been smeared with oil. There is suppuration and degeneration of the cornea and some diminution in the lacrymal secretion. The disease is slowly progressive, and apparently causes the patient very little inconvenience. The prognosis for sight is bad, and when both eyes are affected it is bad for life too.

Treatment: Bathing with warm boric lotion with warm compresses to the eyes. Most important of all is improvement in the general health, good food, and especially cod-liver oil.

Ulcus Serpens.

Ulcus serpens is one of the most serious lesions of the cornea; it occurs in so many of the acute specific fevers, most frequently in smallpox, but also in measles and scarlet fever, that some account of it may be given here. It begins as a grey-coloured infiltration in the centre of the cornea and spreads towards the corneal margin. There is suppuration, shown by the yellowish colour of usually one edge, the margins being more dense than the centre of the ulcer. It spreads rapidly, and may soon destroy the whole cornea; it may perforate very early. There is always hypopyon. The ulcer begins as an infection of some traumatic lesion, such as a small corneal abrasion, and the infecting agent is the pneumococcus.

Treatment must be energetic and early. When there is any sign of dacryocystitis or of infection of the lacrymal sac—and it usually is infected—the lacrymal sac must be excised at once. If it be left to reinforce the infection, there will be little chance of securing healing. The conjunctival cavity must be disinfected as thoroughly as possible by frequent bathing with weak antiseptic lotions—hydrarg. perchloridi (1-5000), hydrarg. oxycyan. (1-3000), pot. permangan. (1-5000). Collargol ointment 1 per cent. is also useful. Atropine drops 1 per cent. twice or three times daily and hot fomentations should be used.

Early cauterisation of the ulcer is very necessary, and should not be delayed when the margin of the ulcer shows the yellowish-grey colour denoting pus and when hypopyon forms. In the absence of a galvano-cautery the ulcer may be touched with the end of a knitting-needle, heated to a dull red in a spirit-lamp, the eye being first cocainised with a few drops of a 4 per cent. solution of cocain. Alternately the ulcer and particularly its margins, may be touched with a match-stick, pointed like a toothpick, which has been dipped in pure ac. carbolic, absolute alcohol, or even tinct. iodi, with very beneficial results. All these procedures are much facilitated by first dropping into the eye a few drops of a solution of fluorescein (2 gr. to 1 oz.); this stains the whole ulcerated surface a greenish-yellow colour and defines the ulcerated area clearly. I have seen excellent results obtained by lightly scrubbing the surface of the ulcer with a 20 per cent. solution of zinc sulphate. Cotton-wool is wrapped round the end of a match-stick, dipped in the solution, and then used for scrubbing the ulcerated surface. Drops of a $\frac{1}{2}$ per cent. solution of optochin, which is ethyl hydro-cuprein, used every two hours is said to be very satisfactory. Any further procedure which may be necessary is best left to the ophthalmic surgeon.

Routine Care of the Eyes in Acute Specific Fevers.

In mild cases with slight conjunctivitis it is sufficient to bathe the eyes every 4 to 6 hours with warm boric lotion. When the discharge is muco-purulent, the physician should carefully examine the eyes each day, more particularly the cornea. The bathing should be more frequent and mild antiseptic lotions used. Some simple ointment such as boric should be smeared along the edges of the lids night and morning. In addition, drops, such as silver nitrate 1 per cent., protargol 5 per cent. to 10 per cent. or collosol argentum may be instilled in the conjunctival cavity two or three

times daily. In more severe cases, where the lids are œdematous, swollen and painful, a daily examination of the cornea is essential. When, as often happens, it is difficult to separate the lids, retractors must be used. In emergency, makeshift retractors can be made from a couple of long hair-pins. The looped ends are bent on themselves to more than a right angle for insertion between the lids, and the pointed ends can be slightly bent to give a "purchase" to the physician's fingers. Extreme care must be used in inserting retractors lest injury be caused to the cornea. When the lids are gently separated all muco-purulent discharge should be wiped away with pledgets of cotton-wool soaked in lotion; the conjunctival cavity is then douched, and the cornea carefully examined for any signs of keratitis or ulcer.

Tales of Long Ago.

V. A Sketch of Extern Life.

(G.H.G., February 22nd, 1873.)

I WONDER if the policeman, wearily commencing at midnight to pace his monotonous beat, softly tapping his gloved hands against each other in a vain attempt to keep them warm this snowy winter's night, knows anything of the young gentleman—rather worn and anxious-looking, who rapidly passes him, following in the wake of a dingy female, in tears, and in dishevelled raiment, and sometimes alas! in liquor also?

I wonder, too, if the people at the early breakfast stalls—if the labourers slouching to their work half asleep—if the early market people abroad betimes, know or think at all about, or even notice, the tall buttoned-up figure which passes them also, and must seem —as it is—so utterly a thing apart from them and their pursuits, in gait, in dress, in abstraction of manner?

But I don't at all wonder if the women recognise, as I know they do, the "Orspittle Doctor" at a glance. Some of them know all about him, through having been attended in their childbearing "troubles," as they graphically phrase them, by several generations of the said "Orspittle Doctors" or Externs. Some only from having, (with that charitable zeal in helping one another so noticeable, thank God! among the very poor), many times trudged miles through mud, or snow, or summer heat in search of medical aid for a friend or neighbour, and many—perhaps the greatest number—from that rabid interest which the gentler sex in all ranks of society invariably take, in matters appertaining to marriage and its consequences, and which impels them to know all about, when everybody of the feminine gender is "due" and what doctor is "bespoke" for the occasion, and every other circumstance of little or great importance connected with the event. I do not remember that any writers about the night side of London: De Quincey, haunting, half-starved, the slums about Oxford Street—Dickens, who, argus-eyed, seems to have allowed almost nothing to pass unnoticed by him, or unillumined by his pen—Sala, the inimitable, the versatile, the "cockney" *par excellence*—have noticed or written about the Hospital Extern; and yet, methinks he is eminently a noticeable and interesting object, and he sees life in so unusual an aspect, that some of his experiences—however roughly or unskilfully thrown together—cannot fail to bear at least the interest of novelty.

We will imagine that mid-night has been passed by nearly an hour, the two externs whom we will take as our examples, are just sitting down to their hardly-earned and much-needed supper, tea or dinner—or all three rolled into one—which they are only able just now to get. They have, since the morning trudged over some fourteen miles of slums—back streets —courts and alleys—visiting their patients, hearing patiently their complaints, prescribing medicine, generally advising respecting the ailments of the whole family, and perhaps a few of their immediate friends, appealing to the parish authorities and many other things. They sit now thoughtfully discussing all these matters, as well as the good things spread before them with a sense of present rest, certainly, but a lively expectation also of being presently disturbed, and in this, they will most certainly not be disappointed. Bang! "a card, sir. please," and one of them instantly gets up, and

prepares to start on his uncertain duty. He may be kept only an hour or two, and his duties prove unimportant; or he may be kept the whole night through, and called upon perhaps, to exercise an amount of energy and decision, and to display knowledge, such as will tax his mental and physical energies to the uttermost.

I think it is this uncertainty as to what he is about to see, what he will be called upon to do within a few minutes, which acts as a constant spur to the energies of the jaded extern, and starts him on his never-ceasing duty, with a springing step and a light heart, notwithing his weariness, his want of sleep, and, sometimes, his want of food.

He follows his conductor up a narrow flight of stairs, almost invariably crushing his hat against the roof, until experience has taught him to keep his chin on his sternum, and his vertebral column in a bow on these occasions, and enters some room such as this,—

A chamber, measuring some twelve by fourteen feet, with generally an old fashioned four post bedstead, and often a feather bed in addition to the mattress upon it, but always in every case an extensive embroidery of dirt on everything. The bed rolled back, leaves a small space of mattress on which the patient lies, carefully attired in *all* her clothes, boots included, and occasionally with her best shawl on. In the little space on the other side of the rolled-up bed lie the family, a heap of little dirty fat children, in some respects like a litter of pigs, but rather dirtier and more unsavoury, and sometimes grandfather with the "rheumatiz" lies snoring in another corner, though when this is the case the general refinement of the family, causes him to be surrounded by a grove of the neighbours' shawls, and other spare garments. To this picture, add a sampler in worsted work containing letters, figures, trees, (Heaven save the mark!) and impossible birds—with more eye in proportion to the rest of their anatomy, than one can believe a discerning Providence to have permitted—china, peacock's feathers—which carry a wondrous wealth of dust—and highly coloured woodcuts of pious subjects, where Daniel in many coloured garments is surrounded by amiable-looking lions, browsing calmly on human osteological remains; or the Virgin gazes with delight on the infant Christ "sucking her it" the expression of the emotions" in this breast bone," as an old carol quaintly expresses case, being managed by the ingenous artist imparting an extra daub of colour to the countenance, and carrying her mouth from ear to ear. The extern, supposing this case to be a perfectly normal one, now generally has a *mauvais quatre d'heur* with the nurse, or other ancient female, before he succeeds in placing her in her properly inferior position, and inducing her to cease frightening his patient with stories of the other cases she has seen. How "Mrs. Wickens, my dear, who lives down our court, No. $4\frac{1}{2}$, one-pair back, had a friend what nussed a lady what gave birth to a child which were *fastened on to her liver*, poor dear," &c., the last words being uttered in an awe-struck whisper. So having fulfilled all his duties, the weary extern tramps home again. and nestles luxuriously between the sheets till the next fatal—bang!—"Card, sir, please," —rouse him to renewed exertion.

Oh! the variety of dirty staircases, of grimy entries, of stuffy-ginny-teay-chambers; and, oh! the weary monotony of the usual duties. The hard work of keeping his patient from being made drunk by her sympathising friends. "She ain't 'ad above a teacupful of gin this hour, doctor!" The fruitless endeavours to escape the attentions of the tribes around, whose existence he is not entomologist enough to delight in—are they not written on the brains of all past and present externs? I have no time left to glance at scenes of patiently born suffering and danger—at instances of refinement and courtesy, little to be expected, but often met with in most unlikely places—of the comicalities and humours of some of the situations—now, but at some future time, I may touch on these.

Also the strictly professional features would be unsuited to my rambling sketch, which must be taken for what it is—a rough draft only of some of the points which have occurred to me, thrown together without arrangement, and scribbled down in an idle hour.

ALBERT CARTER.

Publications Received.

The Isis, The British Medical Journal, The Serpent. The Antiseptic, The Long Island Medical Journal, The Medical Review, The Prescriber, The University of Durham College of Medicine Gazette, The Nursing Mirror, The University College Hospital Magazine, The St. Thomas' Hospital Gazette.

The Prologue* to "The Curse."

Good Gentlemen and Ladies fair;
I pray you, of your patience, spare
A moment, that I may unfold
The reason why we make so bold
To tell this story, that is told
In palsied prose and halting rhyme,
In this poor, playful pantomime.

A year or so ago to-day,
The Residents gave a Residents' Play,
Which play was given, as is the rule,
In a theatre in the Medical School.
The Hall was thronged—not a seat to spare;
Matron and Eason and Goschen were there,
And famous Physicians of acumen rare,
And Specialists too, beyond compare.
Cynical Surgeons came to stare,
To laugh, applaud and, perhaps, to swear.
And last, but not least, of that goodly throng
Came one, who wished he had not 'ere long,
For there he sat, so I've heard tell,
And wriggled and squirmed as each blow fell,
Tearing his hair and muffling a yell
And wishing the Residents all were in—Paris!
'Twas the Very Reverend A. G. Harris.

It will seem strange to you, though it's perfectly true,
They tried very hard his fair name to besmirch,
For the President acted a part, that detracted
A lot from this eminent prop of the Church.
I freely admit he was tuneful and witty,
But I think that his ditty was ruthlessly wrong,
For it's frightfully easy, if you are not queesy,
To make up a breezy and scandalous song;
Though it's rather a bloomer and very poor humour
To start off a rumour, that's bound to embarrass,
And it wasn't the game to belittle the fame
And slander the name of the Reverend Harris.

But little cared each Resident,
And little cared their President,
And they were never hesitant. But they were doomed to hear
When they picked on such a person,
In their madness, to write verse on,
They could not have picked a worse 'un, if they'd tried for half a year.

For the parson, they derided,
Though he laughed as much as I did,
Yet he very soon decided they must answer for their verse.
All his better feelings scorning,
He rose early in the morning,
And, without a word of warning, he transfixed them with a curse.

He called for his bell; he called for his candle;
And, in order to cancel this terrible scandal,
He decided to curse each renegade Resident,
But first and worst, he cursed their President.

He cursed him steadily, point by point,
From his occiput down to his mid-tarsal joint.
He cursed him in standing; he cursed him in walking;
He cursed him in laughing; he cursed him in talking;
He cursed him in College, that every night
He should dream of the porter and wake in a fright
And find, when he'd tracked up to "Patience" or "Bright,"
That Night Sister had sent for him just out of spite.
He cursed him in sleeping; he cursed him in rousing;
He cursed him in working; he cursed him in "browsing";
He cursed him in reading, in writing, in thinking;
He cursed him in eating; he cursed him in drinking.
Never was heard such a terrible curse.
It was worse than a Sister rebuking a Nurse.
It was worse than the worst that one dreams of in dreams.
It was worse than the curse of the Jackdaw of Rheims.

But, although it was bad, the Padre was mad enough
To think that the punishment wasn't quite bad enough
And so added, to all that I've mentioned before,
The Gilbertian curse from the play "Ruddigore."
Which curse, you remember, was laid by a witch
On *Ruddigore's Baronet, cruel and rich,*

*We publish the entire Prologue to the Residents' Play, on account of the large number of requests to do so, that we have received,—Ed.

Who spent all his life, his wealth and his leisure
In wallopping witches—their pain was his pleasure;
Till at last, as he roasted a witch in the blazes,
She gave it him hot in these cauterised phrases:—
(I quote from the Author without his permission;
I think it's page four, of the second edition.)

"Each Lord of Ruddigore,
Despite his best endeavour,
Shall do one crime or more
Once every day, for ever.
This curse he can't deny,
However he may try,
For should he stay his hand, that day
In torment he shall die."

So the Padre, in terms that were almost synonymous,
Put a curse on the President, but left him anonymous,
So that every man, who attained the position
Of President, suffered this grim inquisition
How bad it was you soon will judge,
For what became of this gruesome grudge,
And how they suffered, who made those hard re-
Marks, concerning our popular Padre,
We hope to-night to you to display;
For the course of the curse is the plot of our play.

But, lest we too should chance to offend,
(Which chance we pray may Heaven forfend),
We apologise now and not at the end.
We guarantee too to the Staff and his wife,
That none of our parts is modelled from life.
We've tried very hard to keep the play's tone up,
But regret, to be truthful, we straightway must own up
That the past of the cast isn't all we desire.
With the help of the Matron, who's always our patron,
We've chosen some Nurses you all must admire,
For each Nurse is a lady—but the men are quite shady
And are not of the type, that we really require.
As for the play—well, you'll see in a minute.
But we'd like you to realise 'ere we begin it—
There isn't a ward-maid anywhere in it!

Guy's Hospital Employees' Association.

President: H. L. EASON, Esq., C.B., C.M.G., M.D., M.S.

THE Annual General Meeting of the above Association was held in the Physiological Theatre on Friday, February 13th, and, although the attendance was small, it proved that those present were a very active body, who were all out to further the interests of the Association.

Since its re-formation after the war, the Association has grown rapidly and it now boasts of a membership of over a hundred. They have been fortunate enough to secure the services of Mr. H. L. Eason as its President, so long as he is connected with Guy's, so that with the co-operation of all the employees, the Association should go far.

During the past year several social events were held, all of which were well attended. The chief event of course was the Annual Dinner, which was one of the outstanding successes of the year. Over 220 members of the Hospital Staff, Employees and their friends attended this function.

Another achievement was the splendid response of the employees to collect for the Bicentenary appeal. As a result of their efforts a sum approaching £1,500 has been collected through their medium during the past five months—this in itself speaks volumes for their efforts and all employees are to be congratulated upon this result.

Undoubtedly, the splendid esprit-de-corps which is always so closely associated with Guy's men is now an established fact amongst the employees.

The members are all keen and enthusiastic, working wihth one ambition to make their Association one of the leading organisations and a potent force in hospital life.

Until a short while ago it was the only organisation of its kind, but recently another of

the big London Hospitals have followed suit and has founded a similar association.

The Guy's Association have arranged a very interesting and varied programme for 1925, and includes rambles, short drives, social evenings and a dinner. In addition they are arranging sports, social and educational sections in order to provide for the requirements of all employees of the Hospital and Schools.

Several tournaments are being arranged including lawn tennis, draughts, chess, table tennis, boxing and swimming. During the past year Dr. Fawcett very kindly presented a handsome Lawn Tennis Challenge Cup for competition amongst the employees. Naturally this has aroused a great deal of enthusiasm and friendly rivalry and there is likely to be keen competition for this trophy, which is at present held by Mr. Hill of the Superintendent's Office.

In order to provide facilities for the employees to meet socially after working hours and for the Association to hold their Committee Meetings and various social functions, the Governors of the Hospital have kindly provided a very fine Common Room for their use—a Library and indoor games will also be provided.

With the Governors of the Hospital and members of the Staff taking such a keen interest in the Association's progress its future is undoubtedly assured.

The following Officers and Executive Committee were elected for the year 1925:—

Chairman—Mr. H. J. Beale.

Hon. Treasurer—Mr. E. Williamson.

Hon. Secretary—Mr. J. H. E. Winston.

Assistant Hon. Secretaries—Mr. F. Brereton (Works Dept.), Mr. G. H. Meaton (Supt's Office), Mr. L. H. Goodliffe (Medical and Dental School).

Auditors—Mr. F. H. Beckwith and Mr. W. Saltmarsh.

Executive Committee—Messrs. A. Baker, W. F. Cook, S. H. Croucher, F. Muir, J. Sill, Mrs. Archer, E. R. Homfray, R. B. Sutton, W. R. Saltmarsh, E. F. Chown, J. C. Turner, Miss Addiscott.

PROGRAMME, 1925.

Friday, February 20th—Wrist Drive.
Tuesday, March 3rd—Social Evening.
Tuesday, March 31st—Theatre.
Friday, May 1st—Whist Drive.
Saturday, June 6th—Ramble, and Social Evening around Gomshall.
Saturday, July 11th—Ramble, and Social Evening around Addington Hills.
Sunday, September 6th—Trip to Brighton.
Thursday, October 15th—Whist Drive.
Friday, November 13th—Annual Dinner.
Tuesday, December 15th—Poultry Whist Drive.

LAWN TENNIS TOURNAMENTS.

Fawcett Challenge Cup.

Ladies 'and Gent.'s Singles.

1st Round to be completed by Saturday, June 6th.
2nd Round to be completed by Saturday, June 27th.
3rd Round to be completed by Saturday, July 11th.
Semi-Final to be completed by Saturday, August 15th.
Final to be completed by Saturday, September 5th.

Entries for the above must be sent to the Hon. Secretary on or before Friday, May 8th, together with the fee of 1s. per entry.

A Mixed Doubles Tournament will be arranged provided that sufficient entries are received.

The following Tournaments will be held provided sufficient entries are received. All Employees interested in any of the following Sports or Games are requested to forward their names to the Hon. Secretary immediately:—

Billiard Tournament.
Draughts and Chess Tournament.
Boxing.
Swimming.
Table Tennis.

Change of Address.

C. B. Staines, "Crossways," Sinah Lane, Hayling, Hants.

Papers by Guy's Men.

R. P. Rowlands, M.B., B.S., Foreign Bodies in the Abdomen. *Clinical Journal*, liv., 1925, p. 7.

Verses from an Old Guy's Man.

O Guy's men scattered o'er the earth!
From John O'Groats to Wellington,
Come, aid thy Mother's second birth,
Now prove thy love for her, O son!
O men of Guy's, O men of Guy's!
She needs thy help, arise, arise!

Now turn thy gaze and backward glance
To student days in field and ward,
That time ye fought with probe and lance
Thy first great fight 'gainst death's drawn sword.
O men of Guy's, O men of Guy's!
She needs thy help, arise, arise!

A fog without, a fire within,
And shadows dancing on the wall,
A jolly care-free students din,
Blue smoke, tall yarns and much football.
O men of Guy's, O men of Guy's!
She needs thy help, arise, arise!

And when you walked her silent wards
With hands in pockets, books 'neath arm,
O how you loved those ancient boards!
And felt, within, their subtle charm.
O men of Guy's, O men of Guy's!
She needs thy help, arise, arise!

And what of dear old Honor Oak,
Of well hit six or hard won try?
'Twas there ye learnt that tennis stroke,
And came by things that naught can buy.
O men of Guy's, O men of Guy's!
She needs thy help, arise, arise!

O then thy thoughts must surely turn
To those who worked and played with thee!
What mighty lessons ye did learn!
O can ye ever pay her fee?
O men of Guy's, O men of Guy's!
Come, pay her fee and help her rise!

G. E. R. (Guy's 1903—1905).

Reviews.

General.

Reports of the St. Andrew's Institute for Clinical Research. Vol. 2. Published by Humphrey Milford, Oxford University Press. *Price* 10*s*. 6*d*.

IT was not our privilege to review Volume 1 of this book, but we can testify to the excellence of Volume 2. The book is one written from the point of view of the investigation of the mode of activity of cells and impulses bringing about certain results rather than a treatise on the results of disease. Investigations have been made in attempts to prove what the authors describe as "fluctuation," e.g., when an organ does not work to its full capacity only a portion of the cells are active at one time—greater activity produces the participation of greater numbers of cells whether they be secretory, muscle or nerve cells. Enquiries also were made into the question of reflex arc, in that certain parts of it exert a peculiar influence on all other structures composing the arc below this part; on this account the authors recognise that certain structures exercise an influence which they name "control"; also further research was made into the question of generation of impulses.

The book has been divided into a series of monographs by different members of the Research Institute, and each strives to clear up the atmosphere of this difficult yet interesting subject. The first article is by Sir James Mackenzie, who writes on "The application of the principle of the Reflex Arc to the interpretation of Cardiac Signs." He bases his work on the fact that there are two structures in the regulation of the activity of the organ: (a) Cells determining the special character of the function of the organ; (b) the structures concerned in conveying impulses, which are three in number. Variability in one of group (b) will lead to a modification in the production of a symptom. The combination of the groups he speaks of as "The Reflex Arc"—the principle of the latter showing that the seat of disturbance producing the disturbance is *not* to be found in the structure exhibiting the symptoms. The question is then considered by taking the interpretation of heart irregularities as his example.

In the next paper Sir James Mackenzie introduces "Some general principles of Cellular and Organic Activity in relation to Symptoms." This he divides into five parts. In part 1 cellular activity and certain fundamental and essential facts of such is con-

sidered—first the phenomena of cellular activity, next the generation of impulses. In this latter group he recognises that an impulse is the product of cell activity, conveyed only by living structures and acts by stimulating cells to discharge their function, this being "the impulse of a vital force," or "nerve force." An excellent few pages are then written on impulse production in the skin, tone and viscero-motor reflex, the conduction of impulses and passage of impulses through unspecialised tissues, all of which go to prove the reception of impulses and the degree of response is governed by the law of fluctuation. Part 2 considers organic activity and regulation, and attempts have been made to show that all the characteristics of organic activity are dependent primarily upon the laws of cellular activity which govern the activities of the cells composing the organ. In this part is discussed the question of cells grouped to form an organ do not recover their store of energy at the same rate, and so all the cells are not equally stimulable at the same time, and the greater the accumulated store of energy the more susceptible is the cell to stimulation. To this general feature of organic activity "the law of fluctuation" has been given.

Part 3 deals with the "graded response"; part 4 controlled, purposive and effective response; part 5 loss of control. In the author's conclusion he states that the lack of progress has been the absence of knowledge of "vital force."

Part 4 deals with the occurrence of tremor and fibrillation in voluntary muscle as is demonstrated by the quotation of two clinical cases. Emphasis is laid on the fact that the motor nerve to a voluntary muscle not only carries impulses causing contraction of the muscle, but also an influence called "control." Part 5 deals with cardiac pain in its relation to the response to muscular effort and attempts are made to show that the underlying principle is resolved into assessing the functional capacity of the heart muscle under the best possible conditions and of recognising the extraneous factors which embarrass its action. Examples are quoted of several cases which were observed, and excellent prints of the conditions found on post mortem examination in their hearts are inserted. Chapter 6 is divided into four parts and deals with the regulating and reflex process, and shows that a comprehensive study has been made into this vital question.

Investigations were made by Professor Waterston on the sensory activities of the skin for touch and temperature, and he obtained several interesting results. Professor Herring then explains "the law of fluctuation."

The book finishes with three excellent and well-worth-reading chapters on: (a) The X-Ray examination of the normal infant's chest; (b) a clinical study of influenza; and (c) the absorption of foreign particles and tubercle bacilli by the lymphatics and lymphatic glands.

We should like to congratulate the authors for their excellent achievements, and also for the lucid way in which they have stated a series of really difficult observations..

The book is excellently printed and is illustrated by numerous plates and prints, and shows what may be accomplished by a school keen to advance science by research.

Surgery.

Operative Surgery. Sir W. J. DE C. WHEELER. F.R.C.S.J. Fourth Edition. Published by Bailliére, Tindall & Cox. *Price* 15*s. net.*

THIS book starts with quite an excellent account of local and "block" anæsthesia and a short description of oil-ether colonic anæsthesia. There is a clear exposition of the main principles and objects of operative surgery; though it is difficult to understand what the author means by the following sentence: "It is difficult to get perfect healing in general hospitals as organised to-day. By this is not meant healing 'by first intention'; that is easily obtained, but may be very imperfect."

The author then follows the plan usual in all the usual text books on this subject, describes all the recognised operations, and ligatures of the more important arteries. In addition, the author gives modifications of the ordinary operations which he himself uses, e.g., his modification of a "Whitehead's operation." Together with the description, are given as well, the indications for that particular operation, the special difficulties encountered, and "practical tips" which the author has himself found useful.

Special mention must be made of the section on orthopædic operations, which is much fuller than is usually the case in books of this size.

The volume throughout is well illustrated to explain particular points in the text. Altogether this book is as good as any of its kind, and can be thoroughly recommended.

Ophthalmology.

A Pocket Book of Ophthalmology. ARTHUR JAS. BALLANTYNE. Second Edition. Published by Messrs. E. and S. Livingstone, 16 and 17, Teviot Place, Edinburgh. *Price* 6*s. net.*

THIS excellent little book is, as far as reading matter is concerned, only half the size it appears to be. This is not due to an optical illusion, but is because every other page is a blank page. designed to be filled in from the gems of priceless wisdom which emanate from the surgeon's lips. Whether this ever occurs—I refer of course to the using of these pages for notes, not to the emanation of wisdom, for of the latter there can be no shadow of doubt—only the author could tell us.

The descriptive text is very clearly laid out, suitably sprinkled with headings and sub-headings, and there is a full Index to aid in the search for knowledge.

In the treatment of keratoconus, we are told to cauterise, combined with puncture of the cornea. The latter part of the procedure has been very largely given up by English surgeons, and would surely make even a Scotch eye look dour.

Delving as it does even into the anatomy, physiology and development of the eye, the book should prove a most efficient antidote to the increasing interest shown in ophthalmology at the Final Examinations.

The price of *Physiological Principles in Treatment,* by Langdon Brown, which was reviewed last issue, is 10s. 6d. net.

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Compiled by Geo. A. R. Winston, Wills Librarian.

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Sport.

Rugby Football.

Guy's v. Royal Navy.

PLAYED at Devonport, on Saturday, February 14th, and Royal Navy, mark you, instead of Devonport Services, because the Navy are getting themselves ready for the Inter-Services series of matches. We had a good side against us and the only representative sailor players away were Lieut. Stephenson and C.P.O. Luddington, who were playing on different sides in the International at Twickenham. Unfortunately I could not witness the match, but it is reported to me that the ground was in a very dreadful state, worse than our own playing pitch ever is, and this sounds pretty strong. We also find that about three of our best forwards could not undertake the journey, so that altogether a defeat by nine points to nil does not seem too awful. Then again, Graham-Davies was not there, and his defence on such a day and against such strong forwards would have been invaluable. All three Navy tries came before half time, one quite early, gained by Sub-Lt. Lee, and the others came from Jr. Husson and Sub-Lt. Wood respectively. Very manfully did our fellows try to retaliate, but the ball was dreadfully difficult to hold and foothold was, beyond doubt, an absolute lottery. The conditions were just as bad for our opponents, and the fact remains that inasmuch as they successfully overcame the difficulties of ball and ground, they fully deserved to win. It was a great pity that we could not have had a better day because the match is always enjoyable and these Royal Navy sportsmen the very best to play against.

P. D. B. Spence; G. Fellowes-Smith, C. L. Steyn, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen; N. M. Holloway, W. H. Myburgh, J. W. Schabort, E. W. Hutchinson, De Wet Vorster, J. W. Popplewell, J. D. Visser, and A. N. Other.

Guy's v. Middlesex.

2nd Round, Inter-Hospital Cup.

AT Richmond, on Thursday, February 19th, it was our lot to come up against Middlesex and defeat them. One hopes that Middlesex will not think we want to adopt the big brother attitude, but perhaps they will forgive us if we say that a better lot of triers never stood up to their gruel than did Middlesex on this particular afternoon in this competition. Four goals and four tries, 32 points, was our total; Middlesex, 1 dropped goal, 4 points. We have not had the experience of being heavily defeated lately, but it takes a lot of pluck to keep fetching the ball back from behind goal line and placing it in the centre of the ground for the renewal of the game, time after time, and each time means you are further down the pole, but Middlesex went at it again always in the spirit of "come on, we are not done with yet." Their dropped goal was a beauty; T. J. Millan did it. Millan played well all through. The Brothers MacLeod also did well, it is seldom they do

otherwise. S. R. Matthews also caught the eye. When we meet him later on at the National Sporting Club I expect he will catch some of us in the eye again.

It would be egotistical to say that we had the pull at most positions; the forwards got the ball and the stream of passes never appeared to flag. Fellowes-Smith was the first to score; good passing led up to it. Van Schalkwijk goaled, and then Millan put on his wonderful dropped goal. From the restart Van Schalkwijk got off and gained a try. Holloway next touched down, and then Steyn received a long pass from Graham-Davies and went over without any undue hindrance from our opponents. Van Schalkwijk hit the post with the attempt at additional points; our lead at the interval was 14 points to 4 points.

The second portion of the game was a good deal in favour of our backs, and it was their speed in attack that led to the rising score; the forwards could not be accused of excess of energy in the loose, and the Middlesex men had the better of it as far as territory was concerned. In the tight we got the ball regularly, for which our thanks are due to Myburgh, of whom so little is seen, but by whom so much is done. Holloway is another silent worker, always where the fight is thickest. The tries came in the following order—from Fellowes-Smith, Van Schalkwijk, Graham-Davies and Steyn. Graham-Davies converted one try and Durr two, and there the scoring ends. Till the last whistle Middlesex forwards kept up their footwork and sterling rushes, but no further score accrued, and one left the field thinking and realising once again how difficult it is for forwards to gain tries by themselves.

P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, J. W. Schabort, E. W. Hutchinson, De Wet Vorster, W. H. Myburgh, J. Popplewell.

Guy's v. Plymouth Albion.

THIS match was played at Honor Oak Park on Saturday, February 21st, on a dry ground and with a dry ball. My report is being written before the Monday papers appear. Enough be it to read the Sunday ones, one of which thought the game uninspiring; to my humble mind the game was quite the opposite. Nothing could have been more heartening than the way our men set about their task and kept it up to the end of the match.

Two minutes from the commencement Durr led his gallant pack in a tremendous rush which ended in he himself falling on the ball and gaining a try, which he converted. Just after he kicked a penalty goal, wide out on the right and before 15 minutes had elapsed he did the same thing from the other side of the field at much longer range. They were all three magnificent kicks. Now came a rush or two from the Plymouth forwards, to press us back towards our goal line, and once or twice a defender passed back in most dangerous fashion. Graham-Davies tried some oblique kicking, but they were not successful, finding frequently the Plymouth men fielding quite successfully and returning with interest. Spence did not find touch so accurately as usual. Two glorious kicks by Preen helped us out of danger, and Hops, who played by far his best game so far, went down in the most fearless fashion. Myburgh was good and Popplewell ever on the ball and good, too, in the tackle. Beautiful passing right along to Fellowes-Smith looked a certain try. But, facing Hurrell, the Albion full back, he passed to Durr whose pace was not sufficient. One almost thought the wingman might have cut in on his own. A very big Plymouth forward made a terrific burst for the line, shaking off all opposition he at length passed to Dowe who accepted and scored a good try. The conversion did not follow. The referee with great impartiality most generously awarded free kicks to both sides; three to Plymouth looked dangerous; all three, however, failed.

The second half found Guy's still aggressive. When all the forwards did so well it is almost unfair to mention anyone in particular, but scarcely can Scholefield's play be passed over without mention. Again and again he came through with the ball at his feet. A great run on Van Schalkwijk's part found Clark slightly out of position. On the other hand Clark did useful work, though his centre found it impossible to use him very much. Two more tries came from Fellowes-Smith, the first one from passing along the line, the second from a perfect round from left to right, when Graham-Davies at full pace gave Fellowes-Smith a perfect pass. The wingman took it cleverly in his stride, and overcoming two tackles he

got a fine try indeed. Just after he repeated the same thing, or rather all the backs did, and then Graham-Davies put on the pace in just the same way; Fellowes-Smith was off with unchecked speed. This time, however, he was collared, and Guy's left the field having played a very fine game indeed. Guy's, 3 goals (2 penalties) 2 tries, 17 points; Plymouth Albion, 1 try, 3 points.

P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, W. H. Myburgh, J. W. Schabort, E. W. Hutchinson, De Wet Vorster, J. Popplewell.

United Hospitals Hare & Hounds.

Match v. Orion Harriers "A."

THIS was held over our opponents course at Chingford, on Wednesday, February 18th, 1925, over 5 miles of mud and water in Epping Forest. The Hospitals, for once, turned out a really representative team and in consequence won a good victory. Darley and Ross had a great race, with the latter only getting away in the last quarter of a mile. Jago and Holmes also continually passed and repassed each other until about $3\frac{1}{2}$ miles, when the former began to draw up slightly to the two leaders. Chitty, who we believe has been in Epping Forest before, ran in his best form to finish fifth. It was very sporting of the Orion to let us run 13 men as they could only turn out the recognised 8.

1. G. E. Ross (Orion), 33mins. 7secs.
2. W. W. Darley (Bart.'s), 33mins. 27secs.
3. M. E. M. Jago (Guy's), 33mins. 42secs.
4. T. E. Holmes (Orion), 34mins.
5. J. H. Chitty (Guy's), 34mins. 58secs.
6. H. N. Walker (Bart.'s), A. Simpson (King's), 35mins. 28secs.
8. E. R. Askew (Orion), 35mins. 39secs.
9. D. C. Wickenden (Orion), 36mins. 21secs.
10. T. M. Calhaem (Guy's), 36mins. 24secs.
11. C. L. McFarlane (Orion), 36mins. 37secs.
12. J. E. Snow (Bart.'s), 37mins. 2secs.
13. G. R. S. Stewart (Guy's), 37mins. 7secs.
14. E. A. Small (Orion), 37mins. 11secs.
15. L. K. Wills (Guy's), 37mins. 28secs.
16. F. A. Helsdon (Orion), 37mins. 51secs.
17. J. D. Tutin (Orion), 38mins.
18. O. H. Bellerby (Bart.'s), 38mins. 22secs.
19. W. D. Jones (Guy's), 39mins. 8secs.
20. R. H. Yelf (King's), 40mins. 45secs.
21. N. F. Pearson (King's), 46mins. 40secs.

1. U.H.H. & H.—2, 3, 5, 6 and 7=23 pts.
2. Orion Harriers.—1, 4, 8, 9, and 10=32 pts.

Guy's Section.

Notices will be posted in the Colonnade re the team from Guy's to take part in the Inter-Collegiate race on March 4th, which will probably be held at West Wickham. Some training runs for the Kent-Hughes Race will take place at Honor Oak Park shortly. The times for these will also be posted.

Match v. Westminster Bank.

THIS was held at West Wickham, on January 28th, 1925, over the $5\frac{1}{2}$ mile course. The Hospitals were again poorly represented, which was a pity, as one good man would have enabled us to win, or at least draw the match. Darley was in great form however, and did well to beat such a well known runner as Jock Ovington by nearly 2 minutes. The first 7 home were:—

1. W. W. Darley (Bart.'s), 34mins. 47secs.
2. J. N. Ovington (W.B.), 36mins. 25secs.
3. G. C. Pond (W.B.), 36mins. 25 1/5 secs.
4. L. Pendered (W.B.), 36mins. 58secs.
5. J. H. Chitty (Guy's), 37mins. 48secs.
6. H. N. Walker (Bart.'s), W. Layfield (W.B.), 37mins. 59secs.

G. R. S. Stewart was the only other Guy's man to run.

1. Westminster Bank, 2, 3, 4, $6\frac{1}{2}$ and 8=$23\frac{1}{2}$ pts.
2. U.H.H. & H., 1, 5, $6\frac{1}{2}$, 9 and 10=$31\frac{1}{2}$ pts.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

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The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Hospital Information, etc.

Pass List.

L.D.S.

Part I and II.

Mechanical Dentistry and Dental Metallurgy.

February, 1925.

L. E. Balding.
C. H. Bandy.
V. H. D. Bascombe.
†V. G. Boyle.
C. E. Britton.
E. J. Buxton.
*R. G. Daplyn.
H. C. Davies.
J. E. Forrest.
N. Goldberg.
C. N. Howitt.
†L. L. Lester.
W. H. G. North.
F. Popper.
L. D. Pringle.
†W. A. Wilson.
C. H. Woodham.
*G. H. Billison.
*R. L. Cautley.
*R. L. Duchesne.
*A. W. Francis.
*C. R. E. Freezer.
*A. E. Grace.
*E. M. Greenwood.
*V. L. L. Hall.
*F. S. Hobbs.
*C. Hofman.
*L. H. Ide.
*C. S. Laurens.
*S. D. Marcus.
*G. R. Pidgeon.
*S. C. Post.
*R. F. Prichard.
*R. G. Swiss.
C. N. Talmadge.
H. E. C. Terry.
*N. C. Yendell.
†F. Allott.
†C. A. W. Archer.
†M. Berman.
†T. D. S. Brocklehurst.
†D. M. Calder.
†R. B. Coltart.
†W. A. Corry.
†J. G. Douglas.
†C. S. Henderson.
†F. L. Hassell.
†L. E. James.
†F. F. Kennedy.
†E. J. F. King.
†C. M. Leckie.
†H. O. Lyne.
†M. A. Rushton.
†W. J. Scoble.
†W. H. Shrigley.
†A. W. G. Small.
†J. S. F. Tingle.
†R. W. Waldie.
†C. E. Walters.
†R. Winter.
†S. F. Wright.

*Mechanical Dentistry only.
†Dental Metallurgy only.

Part III (a).

Anatomy and Physiology.

A. E. Farara.
M. Bewlay.
M. Berman.
J. W. S. Coe.
R. Cutler.
A. W. Francis.
Wm. F. Fuller.
K. T. Hops.
W. Hops.
G. N. R. Jones.
R. F. Keet.
A. S. Moore.
F. Popper.
H. Van der Brocque.

Part III (b).

Dental Anatomy and Physiology.

R. Bliden.
C. B. Boyd.
A. S. Levy.
C. E. Long.
J. E. Buxton.
D. M. Calder.
O. L. L. Campion.
E. B. Corry.
L. R. Davey.
E. F. S. Dodd.
S. Droomer.
H. E. Edney.
W. N. Farrar.
M. Farwell.
H. Hall.
H. B. Kendrick.
E. H. Moss.
H. Myers.
W. H. Naylor.
R. E. Rix.
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Birth.

STEWART.—On the 9th February, 1925, at Hillside, Umtali, Rhodesia, the wife of J. Lennox Stewart, D.S.O., M.C., M.B., a son (Donald).

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

"ARBORES magnae diu crescunt, una hora extirpantur"—a very old maxim, but one that remains as true to-day as when it was first written. True, that is to say, in spirit, for it is a very noticeable fact that the single hour is greatly exceeded in uprooting the great trees in the Park. Even when our smooth-boled planes have been robbed of their branches, a lengthy and seemingly dangerous proceeding, many hours must be spent digging out their foundations before the saws and choppers can be applied to the treasonable task of felling them. We have so often lamented the ruthless destruction of our great trees, that we will do so no more, especially since the evil is now done. We will merely hope that the sun will shine on our green lawns and turn our Park into an insolation clinique, for which purpose, we understand, our well-timbered grounds have been de-treed. The sun has no more ardent worshipper than ourself, who hold it to be a more powerful healer than any drug in the pharmacopœia, but the house-breakers must be called in and much more drastic steps taken before one ray of sunlight will find its way into the Bermondsey and Rotherhithe War Memorial Ward for Children.

In thinking on the above axiom, which our books of reference assure us is in the very best latin, it has seemed to us that great trees are not the only people, who take so long to reach maturity and wither so quickly. Small doctors, it seems to us, are very analogous. They truly take many years to grow, years during which they go from knowledge to knowledge, strength to strength, and poverty to poverty, until they arrive at that supreme position of necessitous importance, the resident house appointment. Here they rule, with what skill and charity they may, the lives and destinies of their confiding patients; they are men apart, urgently needed. They leave their firesides to discuss urgent matters over the telephone and are addressed as "Sir" by many. Care furrows their brows assiduously and extends that area upwards to make room for yet more furrows. They grow keen, capable and confident and feel that life is good. And it takes a long time to reach this height. Then comes the day, when the last appointment is over and the small doctor sits in his room, facing the future. Only the most courageous fail to wither in that hour. Life seems at an end, as it was for the unfortunate candidate who, after taking the primary fellowship examination eighteen times, was at last successful and so shot himself. With a definite aim in life, one can face all reverses cheerfully; with nothing but uncertainty before one, life is insupportable.

It is this hopeless sense of uncertainty that withers the young doctor. The Profession is overstocked; the daily newspapers are full of articles on the superfluity of doctors. Every town and hamlet already has more than enough

to supply the needs of the populace, often uncannily healthy, and to purchase a practice needs money, which has the evil reputation of being habitually "tight." The surplus of newly-qualified men and women is nowhere more apparent than in the large number of candidates that apply for small hospital appointments. At one hospital in the Midlands one hundred candidates applied for a junior house appointment, the attractions of which included board, lodging and salary at the rate of one hundred pounds a year. Oh, yes, and washing. That is a terrible situation, which, we understand, is even worse among the women graduates than it is among the men. They cannot get appointments, they cannot afford to buy practices, even were there sufficient to go round, they cannot live without earning money and they cannot find a means of earning it. The Micawbers stay at their hospitals, waiting for something to turn up, but to be a Micawber one must needs be also a Mark Tapley. Always to feel happiest when affairs are blackest is a difficult philosophy to carry out, but the modern situation carries with it a certain lure of its own. To hang on and see what happens is thrilling enough if one has patience. Maybe next month one may have acquired a lucrative post or exhausted the very last source of credit, and in either case it was worth living for. Anything may happen. One may marry an heiress or get run over by a bus or go mad or suddenly become rational, and it is all a very excellent practical joke. One may wish to do good and lack the money to do it, or wish to go to the bad and be able to do that on credit. Oh, it is worth while being a young doctor after all and we won't wither in spite of everything.

To those, who have not yet reached the difficult time when they must decide how to employ their lives and skill, study is of the utmost importance, study not only of the fundamentals of medicine, but also of the modern discoveries of research. Current medical literature should be reviewed and among it the "Guy's Hospital Reports." These excellent reports, a number of which is reviewed in this issue of the GAZETTE, are to be obtained by student subscribers at the reduced rate of thirty shillings a year, but the Wills Librarian informs us that this concession is not appreciated as practically as the Editor could wish. It is perhaps that students have not known of it, and we hasten to inform them.

WITH pleasure we announce that Dr. J. A. Ryle will deliver the Goulstonian Lectures on March 17th, 19th, and 24th, the subject being "The Study of Gastric Function in Health and Disease," and that Dr. Cameron will deliver the Lumleian Lectures on March 26th and 31st and April 2nd on "Some Forms of Vomiting in Infancy." Each series of lectures will be delivered at the Royal College of Physicians, Pall Mall East, and each lecture will commence at 5.0 p.m.

DURING the last two weeks there has been great activity in the athletic world. There have been two cup-ties with King's College Hospital, who were extremely unfortunate not to beat us on their play in the first match. They played a magnificent game, and, though we should have been the first to congratulate them most heartily had they beaten us, we are very thankful that we survived the ordeal to play again. On Tuesday last our representatives put up an excellent performance at the Inter-Hospital Boxing Competitions, and had Clarke and Popplewell not been prevented from appearing, by injuries sustained in the Cup Tie on Monday, it seems very likely that we should have once more become champion hospital. On Wednesday, the Hospital eight had the greatest of hard luck in being disqualified after winning the University of London "Allom Eights" by two lengths, but the Cross Country Team gained a very excellent victory in the Inter-Hospital cross country race on the same day, retaining the Kent-Hughes Cup by one point. It is largely due to Jago's enthusiasm that this Cup remains at Guy's, and he is to be heartily congratulated both on that and on finishing first in the race itself. The fact that H. B. Stallard was third serves to show the quality of the "field." Reports of the Cup Ties and of the Boxing Competitions appear in this issue, those of the Boat Race and Cross Country Race being unavoidably held over owing to lack of space.

WE offer our heartiest congratulations to Graham-Davies on playing for Wales against France, on February 28th.

Tuberculous Disease of Joints.

A Lecture delivered at Guy's Hospital on January 14th, 1925, by C. H. FAGGE.

GENTLEMEN,—Much of the interest on the subject of tuberculous joints centres on the question of the organism which produces the condition. In recent years the Edinburgh school of surgeons have expressed a very strong opinion that most of the tuberculous bones and joints in children are due to the ravages of bovine tuberculosis, and the question is a very important one. There are distinct differences between the two organisms, undoubtedly, and the method of infection is probably entirely different. If you accept the verdict of Stiles, Fraser and others from experience in Edinburgh, you suppose that the tubercle bacilli taken from the milk of tuberculous cows are swallowed by the child, carried down into the lower intestine, and there absorbed into the ileo-cæcal lymphatic glands. Finally, owing to some unknown factor, a blood infection is set up through the body, but this has produced no symptoms until owing possibly to a local injury or mild infection of another kind, a local lesion is induced—in this case—in a joint.

I think the most important thing in relation to joint disease is to realise that a septicæmia is always present, and if you gather that organisms have been disseminated by the blood stream, in other words, that there is, in all these cases, a septicæmia before there is a joint infection, you will realise at once the extreme likelihood of multiple tuberculous infections being present at the same time.

There is much to be said for this method of infection and for the bovine bacillus as the causative factor in most cases of bone and joint disease, and there is no doubt at all that infantile joint and bone tuberculosis is infinitely less common now than it was thirty years ago, largely owing to the cleanliness in handling and in the inspection of milk. It is very much rarer in England than in Scotland, where, apparently, the supervision of cows is unsound. I remember Sir Harold Stiles, when discussing this question said that he, a little time before, had been asked to see the only son of an extremely well-known laird. He was the last of the Somebodies of Somewhere, who had been there since—I hesitate, in the presence of the Scotsmen here, to say when! The man brought his only child to see him, and he was absolutely riddled with tuberculosis. Stiles said to the man, "You keep cows." "Yes," he said, "I keep cows, and I have a special cow for this child." Stiles said to him, "Go home and kill that cow." "But," he said, "there is nothing the matter with the cow; it is all right." Stiles said, "Go home and kill that cow." And the old man, having been used to having his own way with everybody, like most Scotsmen, objected. Stiles took the trouble to send one of his own assistants to the laird's estate, when finally consent was given to the slaughter of the cow when the veterinary authority certified that it had been affected by advanced bovine tuberculosis.

This does not, of course, altogether eliminate the possibility of joint and bone disease being disseminated mainly through osculation, which is for the most part unnecessary and entirely insanitary. Here it is assumed that the human bacillus is the causative factor. We have to realise, whatever our particular part of medicine is, that the organism of tuberculosis is a fairly virile one. I mean that it does not die very easily; it is not killed by being dried, and experimental evidence shows strongly that even after many misfortunes which might be fatal to other organisms, the human tubercle bacillus still exists. Muir and Ritchie say it is of a mean virility between spore-bearing and non-spore-bearing organisms.

If tuberculous joint disease is set up by the human tubercle bacillus we must suppose that it usually gets into the body through the tonsils, then into the lymphatic glands of the neck, and passing into the lymphatic ducts, reaches the blood stream, again causing a blood infection.

Tuberculosis of bones and joints is less common in the wards of this hospital than when I began work in them about 30 years ago. Then almost every female bed in my surgeon's ward had in it a patient who was suffering from tuberculous joint or tuberculous bone; it was so common as that. And they were nearly all suppurating, which is another important difference. I merely mention these things about tuberculosis because one is convinced that pre-

vention of the paths of infection is the most important point in treatment; and, secondly, if you have tuberculous disease, its elimination in its initial focus is the most important factor in preventing its dissemination, i.e., to bones or joints. So if you have any reason to believe that the mode of entry into the circulation is through the tonsil, through septic teeth, or that the patient has tuberculous glands of the neck, thorough removal of the glands, with the septic teeth and the tonsils, may do much to prevent tuberculosis of bones and joints.

With regard to the general pathology of tuberculous disease of joints, one cannot discuss that question without first of all discussing tuberculosis of bone. There has been much difference of opinion as to the method by which the joint itself is involved, and there is now a tendency to suppose that tuberculosis, like most other infective processes of bone, selects as its primary focus the metaphyseal (juxta-epiphyseal) portion of the diaphysis. A variation of opinion on this point exists. Some say, like this book, "The first deposit of tubercle is generally seen in the epiphysis of the head of the femur," but I think this is untrue. It was formerly said that tuberculosis starts in the synovial membrane in some joints. I see no reason why, exceptionally, tuberculosis should not start in any of these three positions, for if we believe, as we must, that tuberculosis is a blood-borne infection in all these conditions, and the blood goes everywhere, any tissue in the body, clearly may be involved. But I think the disease and its results fit in better with general pathological principles if we regard it as a tuberculous osteomyelitis. *The* characteristic of tuberculous disease of bone is rarefaction, and the process by which it extends is caries. And if this were realised, the process of the disease would be more easily followed and confusion with necrosis by loose thinking would not occur.

As you will see by this specimen shown here the rarefaction of bone can produce necrosis; in the neck of the femur, for instance, as in this diagram there may occur a honeycombed, sponge-like sequestrum, entirely composed of cancellous tissue in the middle of a large cavity. It is not like the hard sequestrum of compact bone which results from true necrosis, for here the portion of the neck of the femur is detached as a worm-eaten, sponge-like sequestrum by a process which formerly was called caries necrotica.

In tuberculosis a local focus of inflammation produces absorption of bone tissue and removal of the calcium salts, thinning, atrophy, caries, destruction, liquefaction of the tissues, ending in caseous material, which is merely dead tissue undergoing fatty degeneration. It is not pus, because it does not contain any large number of leucocytes.

The inflammatory tuberculous process starting in the neck of the femur spreads towards the joint, both upwards and sideways, and of course forwards and backwards; and therefore stress must be laid on the fact that when, as in the hip the epiphyseal line of the femur is entirely inside the synovial cavity, the disease is likely to spread from the bone into the joint. One of the effects of tuberculous disease, therefore, affecting this juxta-epiphyseal portion of the diaphysis, is that the epiphysis may be detached, so that the head of the femur is separated entirely from the shaft. Normally, in the child, the union between diaphysis and epiphysis is very feeble, mainly periosteal, and it does not require a very extensive or acute disease to separate that comparatively feeble union. But we must return to the changes in the joint, in which we are now chiefly interested and the infective process extending into the parts around, such as the general thickening of the synovial membrane, of which the first evidence is effusion. But in tuberculous disease effusion is not extreme; there is sometimes so much thickening of the synovial membrane, sub-synovial tuberculosis, that the term "pulpy joint" has been applied.

Extending on to the joint surface, the cartilege becomes attacked, ulceration occurs, and sometimes there is a complete denudation of the articular surface by cartilage being lifted up, like oilcoth being lifted off the floor; and the joint is thereby entirely destroyed as a moveable articulation.

Extension of the chronic inflammatory process to the ligaments gives rise, usually, to some type of pathological dislocation. This is well shown in the knee, where a three-way displacement, the main feature of which is a displacement backwards of the tibia upon the femur occurs. The next important thing to realise about tuberculous joints is, that the disease usually gives rise to fibrous ankylosis; it does not give rise to bony ankylosis, I doubt if tuberculous disease ever gives rise to bony ankylosis by itself. If—as sometimes occurs now and was formerly much more common—a mixed infection supervenes, bony ankylosis

may occur, but it is extremely unlikely that tuberculous disease, per se, does cause bony ankylosis. There are, in the College of Surgeons' Museum, many of them put there by John Hunter, specimens of joints in which there is complete bony ankylosis. Most men see them at examinations and often attribute the process to tuberculous disease when they have resulted from acute pyogenic arthritis.

My main object in pointing out here that tuberculosis ends usually in fibrous ankylosis is that usually an unstable and painful ankylosis results. One of the paths which the surgeon follows in endeavouring to improve the condition of the tuberculous joint, even when it is badly diseased, and even when, as a joint, it is incurable, is to convert a weak fibrous ankylosis into a stable bony one. I have pointed out that the process of destruction of the joint goes on to the formation of caseous material, which may calcify, but sometimes suppuration will take place. It is possible that suppuration may be purely a tuberculous process; but I have never seen any proof that tuberculous disease can cause suppuration in a joint apart from the intervention of a secondary pyogenic infection. It is perfectly true that if you aspirate the tuberculous abscesses of such joints you may often find that they are sterile, and I think this observation is of value, because if these abscesses are sterile, the prognosis is better. The great danger in a tuberculous joint is the pointing of an abscess with reddening, thinning and glazing of the skin over it, and the threatening of the formation of a sinus. The greatest improvement which has everywhere occurred in my time in treatment of tuberculous joints is the knowledge that secondary infection is preventable, and if that can be prevented, everything will probably go well with the patient.

Having passed through the general processes and general pathology of tuberculous disease of joints we shall spend the rest of the time talking about tuberculous disease of the hip.

The whole tendency to advance in tuberculous disease in the joints of the lower extremity is quite different from that in the upper extremity, simply because you bear weight on the lower extremity. Tuberculous disease of the hip joint is, as a rule, a fairly acute condition. Tuberculous disease of the shoulder joint may be absolutely insidious and may be unnoticed until it is advanced. And yet one can easily remember seeing children with tuberculous disease of the hip and who have been running about until they were brought to be examined, and it has been found, possibly, that the head of the femur was destroyed, or that there was very advanced disease.

The variation in rate of progress is extraordinary. The characteristic tendencies of those processes which I have already indicated in the hip are destruction of the head, or more rarely separation of the femoral epiphysis. Usually if untreated a very advanced destruction of the head and the neck occurs and the disease may extend into the acetabulum. The acetabulum is hollowed out and the eroded head of the femur fits loosely in its upper part. Extension to the acetabulum has one of two effects. One effect, as seen in the specimen on the table, is the formation of a sinus in the acetabulum, and the disease extends into the pelvis, with the formation of an intra-pelvic abscess.

It is worth pointing out that the latter may begin in the head and neck of the femur, extend into the joint, involve the psoas bursa, and then pass up over the horizontal ramus of the pubes along the psoas muscle, or downwards and point near the lesser trochanter, like a psoas abscess resulting from spinal disease. The involvement of the acetabulum, which at that period is still cartilaginous, is of great importance, and of very bad prognosis. It is not until puberty that this Y-shaped or tri-radiate cartilage between the three portions which make the acetabulum—the ilium, ischium and pubes—begins to ossify, and the cartilage, until 15 years of age, therefore, is an extremely vulnerable point. Writers point out that the gradual erosion of the acetabulum upwards—the direction being determined by the body weight—ends in what is known as "wandering acetabulum," and that true dislocation does not take place. It is of some importance.

In tubercle true dislocation does not occur, but the condition is one of subluxation, which is a common result of the absorption of the acetabulum upwards and backwards. You will readily appreciate that if the acetabulum is eroded in this way, the great trochanter will be nearer the middle line than it should be. In a true dislocation the great trochanter is, of course, pushed outwards. While limitation of movement is a characteristic of tuberculous joints, and undue mobility is a characteristic of congenital dislocation; one sign which is suggestive of tuberculous disease is the fact

that the great trochanter is not unduly prominent, whereas it is always unduly prominent, as far as I know, in congenital dislocation of the hip.

The next point about tuberculous disease of the hip is the formation of abscesses. Abscesses formed in tuberculous disease of the hip joint pass through the softened ligaments *forwards*, or through the bursa which lies under the ilio-psoas, immediately below the Y-shaped ligament, and point immediately below the anterior superior spine, or below and outside the gluteus maximus, *backwards*. Or they pass *inwards*, and point inside the femoral vessels. These are the three usual positions.

The commonest is that which points immediately below the anterior superior spine; it comes forwards along the deep fascia beneath and then below the tensor fasciæ femoris. In a number of these cases the disease has penetrated the capsule posteriorly, and the gradually extending abscess cavity has followed the external rotators, the obturator internus and externus, and come forward. Or it may run backwards along the obturators and then burrow underneath the gluteus maximus postero-laterally in the thigh. Extension along the psoas tendon, upwards or downwards, is less common.

Most children suffering from tuberculous disease of the hip do not at first have their disease diagnosed. There is obviously something the matter with the child, he is off his food and is fretful; he may be found to be suffering from an irregular pyrexia, he may be losing flesh and may be sweating at night. But the most common early physical sign drawing attention to the local disease is a limp, and the limp is very much like that of the middle-aged man who has chronic osteo-arthritis. You know the middle-aged man who has chronic osteo-arthritis is a very bad goer for the first quarter of a mile, but after that the joints get wound up and he loses his pain. A child with tuberculous disease of the hip limps in the morning, the limb is stiff, and the stiffness is intermittent; but it gradually wears off as the day goes on. The limp is an endeavour, presumably, to ensure physiological rest.

In this stage the hip is slightly flexed, the child walks on the balls of his toes, and is endeavouring to save his hip-joint by passing most of his weight down through the other limb.

Pain.—Pain is always a difficult symptom to obtain evidence of or to evaluate in a child; that is—the amount of pain and its significance. You all know that in tuberculous disease as in any kind of disease of the hip joint the pain may be referred to the knee. The anatomical reason for this is not clear. There are various statements made as to the causation, which are not very convincing. One of the effects of this pain is crying out at night. Crying out at night, in a tuberculous joint case, is usually regarded as indicating that the cartilaginous surfaces are diseased. Unconscious movement is bringing together these surfaces which are inflamed, and so the child cries out. Incidentally, one of the means adopted in treatment is to relieve possible rubbing together of these joint surfaces, which is exaggerated by muscular spasm, the next thing I shall talk of. And if, by weight-extension, the pressure of the inflamed cartilaginous surfaces is prevented, night-crying will cease; and it is a very valuable point in prognosis to find that the child no longer starts at night. In children who are really doing well, the first thing you notice is this absence of crying at night. In the wards which have cases of tuberculous disease of joints, the Sister who is used to the care of such children, or the surgeon who is supervising them, will first ask "Does he still cry out at night?"

Swelling is not so obvious in tuberculous disease of hip as in disease of other joints, nor is inflammation of secondary lymphatic glands of such importance as elsewhere. A joint disease in a young person, associated with enlargement of its lymphatic glands, is probably tuberculous.

As the disease progresses, the limp becomes permanent, and lameness ensues. On examination of the child, the most characteristic thing is muscular spasm. It is responsible for the limitation of movement, and to a certain extent for the friction of the joint surfaces against each other, and for the night-crying.

Muscular spasm results in limitation of movement. In this stage there is no real fixation, the muscular spasm is strictly protective, and any endeavour to obtain movement in that joint immediately increases the spasm. Therefore endeavours to obtain movement in the joint are, as a rule, not only useless, but also harmful. If you wish to estimate the presence of muscular spasm, you can easily do so by moving the sound limb, not the affected one. Spasm results in limitation of movement in

all directions, and it usually results in flexion. Here is a figure of Thomas' test for estimation of the degree of flexion, and it also evidences the degree of spasm, the left, or diseased, limb being held up in flexion. And in the same sort of way you can estimate, more accurately, in almost any direction, the degree of muscular spasm of the affected joint by manipulating the sound limb. If you abduct the sound leg the diseased leg will be adducted. The pelvis is fixed by muscular spasm, and the leg moves to accommodate itself to the other one. If you adduct the sound leg, the diseased leg will be abducted at the same time. Of all the movements, if you are driven, in spite of doubt, to move a diseased hip, the least helpful and most deceptive is rotation. You must never attempt to estimate limitation of flexion without getting rid of lordosis, which is a constant accompaniment of flexion, by pushing the lumbar spine to the bed, as is shown in the figure on the board.

(To be concluded).

Dental Notes.

The Outlines of the History of Dentistry through the Ages.

By CHAS. H. EDNEY.

THE house of knowledge is built on foundations that are sure and deep, though they may be covered by the débris of ages they are none the less sure. And so I make no apology in attempting an historical survey of dentistry. In these modern times there is a tendency of men to regard themselves as self-sufficient and to turn back the pages of the book of time will tend to bring us to a more quiet opinion and a wider view.

Very little is known of the practice of dentistry in the days of the Semitic, or first, civilisation. It has been said that the art of filling teeth with gold was known in that age and although much controversy rages about the question no definite proof has been brought to light. The Egyptians spent some thousands of years in acquiring knowledge of mummifying the dead; and it is known, both from pictures that have been discovered, and from their writings, that surgery was practised among them. The gold that has been found in the mouths of mummies is probably the remains of gold leaf which was used in covering the faces of the dead, and which has been left upon the teeth and lips; Professor Kirk holds this view. Also, it was their practice to cover the tongue with leaves of gold, and what has been regarded in some cases as gold work in the mouth, may have been mistaken for these. It has been said by some observers that wooden teeth have been found in the mouths of mummies, but so far as can be ascertained these have not been demonstrated.

However, we may assume that the progress of civilisation among the peoples of that time would bring about the same dental degenerative processes as have been brought about in later civilisations; and quite possibly the ancient practice of ligaturing teeth, loose as a result of suppurative conditions of the jaws, may have been practised in Egypt.

It should be said, however, that the discoveries among Egyptologists may not be entirely satisfactory as they have told us that the robbings of the graves of the mummified was almost as frequent a custom as their burial.

It was only the higher castes who followed the custom of ceremonial burial in that many personal treasures were buried with the body. The tombs of the dead were so elaborately built that it is thought that specialists were engaged in their construction. This, combined with their superstitious dread of the dead, has raised the question as to how these robberies could have been carried out, and the theory has been laid down that those men who built the graves and buried the dead, were the only people who would be likely to know how to re-enter the tombs and pilfer the coffins. So

that there were two means of livelihood to those so engaged, the latter no doubt being the more lucrative. Several mummies have been unearthed with the burial cloths unwrapped and the graves entirely denuded of all valuable objects; therefore we might presume that gold may have been removed from the mouths as well as from the rest of the person, so that at the moment any evidence of denture work, which is an ancient art, has not been forthcoming.

The condition of the teeth, however, at that time seems to be comparatively good, and it is a very remarkable fact that the Jewish people, who were cultured mainly according to Egyptian and Babylonian ideas, seem to have retained to the present time a very superior dentition over the peoples among whom they have settled through the ages. This ancient and learned race, mainly owing to their primitive nomadic existence, which of necessity they have always followed, shows us to-day the result of their ancient teaching. Moses, the first great intellect among the world's reformers, was given the status of an Egyptian prince in the household of the Pharoah of his time; he had an opportunity, and indeed took it, of the highest education of which the age was capable. We see from the Old Testament his work as a physician, in the medical laws that he laid down in the interests of the public health of his people. And as medical historians tell us that the Jews did not suffer from leprosy or many scourges of the time, we may conclude that Moses' chief care amongst them was with regard to syphilis. We have no evidence that he taught dentistry as part of the racial hygiene; but, as has been said before, the dental condition of the Semetic people to-day, and particularly of the Jews, is a tribute to that work.

It is only in comparatively recent times that dentistry has been a separate branch of the medical profession. The religious teachers of all ages have also been the law givers and the doctors, and dentistry has always been an inseparable part of their work. How ancient the science and practice of medicine is it is almost impossible to estimate. The first man to record medical work was Hypocrates of Cos, the Doric Greek. Celsus in speaking of the history of medical literature says, "But it was cultivated by the Greeks, a little more than other nations, yet not even by them from the origin of that people but a few ages before us." He tells us that the most ancient author is "Æsculapius and that Podalirius and Machaon were his sons." "But Homer has represented that they did not attempt to cure pestilence nor various kinds of diseases but were in the habit of dressing wounds by the knife." Celsus has recorded that Hypocrates was the first writer to separate his writings from those of philosophy. However this may be, Æsculapius was deified among the Greeks as the god of health and it was in one of the temples devoted to his worship at Cos that Hypocrates was the priest. He had access to the libraries in these temples and he collected the works of such men as Thales the Thilesian, of Pherecydes of Syros, on diet, and of Pythagoras as far back as the year 3330 B.C. From the mythology of his people and by his own research he compiled his work on medicine.

Hypocrates has very justly been called the father of medicine, for not only did he carry out his work as a public duty, but he regarded it in that spirit of service that has become the ideal of medical work from that time to this. But it is only to be expected that such a mind as his would regard his own effort with humility. He says, "He, that rejecting all that is already known, to pursue another plan for his researches, boasts of having found out something new, deceives alike himself and others also." He described the anatomy of the human dentition and was conversant with suppurative conditions in the mouth. He tells us that the third tooth, by which he apparently means the third lower molar, is more liable to suppuration than the rest and "To occasion thick rheums from the nose as well as pain in the temple." He thought that it was possible to lose teeth through an abscess in the ear and describes a case, but now we think that the abscess in the ear is more likely to arise from the opposite cause where there is such dental trouble. He had particular regard to dental caries and the hygiene of the mouth, and prescribed as a tooth powder "animal carbon," and for a mouth wash "Senna, anis, semen and gum myrrh." He had a pretty accurate knowledge of the evils that arise from the eruption of primary dentition. "At the approach of dentition," he says, "occur pruritis of the gums, fevers, convulsions, diarrhœa, especially when cutting canine teeth, and in those who are particularly fat and have consti-

pated bowels." With our present knowledge of the effects of oral sepsis on the gastric system, we may credit him with at least the observance of such conditions arising in young children.

His method of reducing dislocation of the temporo-mandibular joint was based on a knowledge of its movement and he says in describing such a reduction, "The lower jaw protrudes forwards, there is displacement to the opposite side, the coronoid process appears more prominent than natural on the upper jaw and the patient cannot shut his lower jaw but with difficulty. The mode of reduction which will apply in such cases is obvious: one person must secure the patient's head and another taking hold of the lower jaw with his fingers within and without at the chin, while the patient gapes as much as he can, first moves the lower jaw about for a time pushing it to this side and to that with the hand, and directing the patient himself to relax the jaw, to move it about, and yield as much as possible; then all of a sudden the operator must open the mouth, while he attends at the same time to three positions; for the lower jaw is to be moved from the place to which it is dislocated to its natural position; it is to be pushed backwards, and along with these the jaws are to be brought together and kept shut. This is the method of reduction, and it cannot be performed in any other way." He recognises bi-lateral dislocation by "comparing the corresponding rows of the teeth in the upper and lower jaws" and gives the same treatment. This would appear to have been an efficacious method if attended with a little more movement than in the accepted method, but it must have been somewhat more painful to the patient. In reducing fractures he retained the parts in position by ligatures of gold or linen thread. He used the chin and head splint by cutting a thong of about three inches breadth from a piece of Carthaginian leather, gluing it to the jaw and fastening it behind the ears.

He observed ophthalmic conditions in conjunction with dental conditions, for he says, "That drinking origanum is bad for inflamed eyes and the teeth." He believed in counter-irritation for pain and used Castor, a preparation made from the genitals of the beaver and pepper and recommended it to be held in the mouth. He describes death in two brothers following a swelling of the cheek and lip under the eye, although he could find no abscess or cause of one. This may possibly be a description of new growth in the antrum. He does not, in his translated work, devote much attention to diet, but he evidently considered it as a factor in oral sepsis for he notices that Greek soldiers suffer from pains in the legs and gangrene of the gums accompanied by loss of teeth. This possibly was due more to lack of oral hygiene than to diet, because the athletes and soldiers of the Grecian republics were always in a condition of the strictest training as regards diet.

So we see in such an early work as Hypocrates a very thorough foundation of dental knowledge, and whether it be true or not that he rejected the invitation of the "Great King" of Persia, possibly Cyrus, to attend his Court as his physician, he was a teacher as well as a practitioner, and his system of medicine endured until very nearly our present time.

Aristotle, the philosopher and mathematician, was the next great figure after Hypocrates in the medical world. In the year 300 B.C. we know from his works on mechanics that forceps were used in the extraction of teeth and he figures the instrument. It would not seem that root forceps had then been devised, for the ancients were very expert in extracting teeth with the finger and thumb, and the instrument he figures would seem to have been devised—in fact he tells us it is so—to bring about a more powerful movement than fingers would perform, so that we may assume that teeth were not so much forced out of the jaw as this instrument might make us believe, but were moved by a series of movements similar to those in general practice to-day.

Aristotle had a considerable knowledge of dental anatomy and he seems to have been the first to observe that dogs had a deciduous and permanent dentition as in man. He rather quaintly observes that "males have more teeth than females in the case of men, sheep, goats and swine." He seems to think that teeth played an important part in the process of evolution and he says "In the case of other animals observations have not yet been made, but the more teeth they have the more long lived are they, as a rule." He tells us that the wisdom teeth may erupt as late as 80 years of age and we now know of cases where they erupt at 103 years of age. Aristotle's theory of nutrition with regard to the eruption of teeth in babies also held throughout the centuries, and because of this it seems worth

quoting. "The act of suckling in itself contributes nothing to the formation of the teeth but the heat of the milk makes them appear more quickly. A proof of this is that even in suckling animals those young which enjoy hotter milk grow their teeth quicker, heat being conducive to growth." He describes the use of the teeth in conjunction with speech and observes the concomitant variation in the horned animals. His words seem to coincide so much with those of the Darwinian theory as to show this worker to have been a careful and observant thinker. The only fish he observed to have teeth which were not "of the serrated form" was scarus, but he observed the presence in many of them of teeth on the tongue and on the vomer, the reason for which he thought was that they could hold the prey in their mouths while they expelled the water and we should not beg to differ from him to any great degree. He has much more to say about the formation of teeth and the anatomy and physiology of the mouth and he observed the very simple fact that animals not given material weapons of defence are gifted with speed. He thought that some animals were born with teeth, but he was aware that "Children begin to cut their teeth in the seventh month and the front teeth are the first to come through, sometimes the upper and sometimes the lower ones, and the warmer the nurse's milk so much the quicker are the children's teeth to come." This remark about the incisors he may have confused with pathological conditions, but he does not say so.

Galen of the Second Century is acredited with the first description of the pulp, and to him has been ascribed the pioneer work in the cutting of cavities. The only reference to this that it has been possible to find is when he says that "The hollow tooth together with its hollowness must be cut out." Possibly he performed the operation when in speaking of "fractures of the brain," he says, 'That which is bruised must be cut off, being first bored with little augers within its circuit, . . . or from the beginning making use of cycisci." Although he does not seem to describe the operation in the translated works of the Seventeenth Century as far as the teeth are concerned, he certainly knew the use of small hand instruments in the operation of cutting through bone. Galen devoted a good deal of time and attention to diet and gives a list of animals, fish, flesh and fowl, that leads one to think that he held views on the exclusion of foods which we now know play a part in the production of caries.

These three writers have been quoted in some detail that we may see what a very detailed knowledge they acquired of pathological conditions from a dental point of view. And from their records of astringents, and such poultices as the ever useful hot fig, and their prescriptions for mouth washes they had acquired a reasoned knowledge of dental pharmacology. When it is realised that these men had no such aids as the bacteriological laboratory, the microscope, or the vast experience that more recent workers have been able to acquire from former knowledge, we feel an emotion almost akin to reverence for their skilful efforts to relieve human suffering in those days of the genesis of dentistry.

During the Roman period of civilisation the fruits of their work is seen in improved methods and a higher knowledge. The great figure of this age was Cornelius Celsus. The physicians and surgeons of this time were drawn very largely from the slaves of the noble households and although it has been said that Celsus was a freedman the more likely assumption is that he was a member of one of the noble houses. He lived probably during the reign of the Emperor Tiberius in 101 B.C. He is chiefly noted for his work in surgery and he describes in some detail his operations in extracting teeth. He used forceps which he describes as tweezers in straightforward cases, the rhizagea for extracting roots, the vulsellum for removing sequestra and pieces of root, but he only used these if he could not remove a tooth with his fingers. He was evidently a very careful operator as the following may show. "But if a tooth excite pain, and the patient be willing to have it extracted, because he has experienced no relief from local application, it ought to be freed all round, in order to detach it from the gum: then it is to be moved, and that too, repeatedly, until it become thoroughly loosened: for the extraction of a fast tooth is attended with the greatest danger, and sometimes the jaw is dislocated. There is even more danger in the superior maxillary, because it may communicate a shock to the temples or eyes." He was most careful not to fracture the alveolus. Where he found the tongue to be bound down to the floor of the mouth he divided the frænum. He was the first of note to devote his attention to orthodontics. He held the view that the permanent teeth sprang from

the root of the deciduous teeth and forced it out. Where he found a tooth misplaced in the arch he educated the child to persuade it into place by the use of the finger, a method which is practised to-day.

Evidently a good deal of controversy raged round the subject of dissection in the periods we have just discussed. Two workers, Herophilus and Exasistratus, did their anatomical work on criminals obtained by Royal edict from the prisons and dissected them alive. Hypocrates very bitterly opposed any experiments performed upon sufferers and says that observations may be carried out on wounded gladiators and soldiers "or a traveller intercepted by banditti." Evidently anatomists were expected to be, if not omnipotent, very speedy travellers. It is assumed that human dental anatomy might be observed among the boxers in the Olympiads and arenas. Hypocrates very justly says that "the prudent physician discovers their structure. . . . not by perpetrating murder, but by endeavouring to restore health."

There is practical evidence of the wearing of dentures for the Etruscans were very skilled in prosthetics. There were discovered in a skull found at Castellana or ancient Etruria, a gold bridge actually in place in the skull. The Etruscans were the link between the Greeks and the Romans and as it is known that prosthetic dentistry was a prolific art among the Romans one feels entitled to assume that it was known among the Greeks from whom they may have learnt it. Strangely enough it is from Martial, that cynical poet, that we get evidence of this. Martial lived in the First Century A.D., and his very wonderful descriptions of the luxurious life of that age teach us something of medical practice. In writing a poem to one of his friends he says, "You use, and you are not ashamed, teeth and hair that you have bought. What will you do for an eye hælia? That cannot be bought." He tells us of an old lady who was accustomed to remove her teeth at night.

Apparently medical men were in the habit of conducting their classes by the bedsides of their private patients. Martial describes his unfortunate experience in the following poem: "I was out of sorts. You came to call at once, Symmachus, accompanied by 100 pupils. 100 hands, chilled by the North wind, felt my pulse. I was not feverish before, Symmachus. I am now."

A chemist by the name of Cosmus made pastilles which he sold to the fashionable epicures to perfume their mouths in the morning. It was Cicero who tells us that extraction was first recommended about the year 1300 B.C. by Asklepios. In the year 600 B.C. Solon was the first to record his observations that the permanent teeth erupted at 7 years of age. Dentifrices were used as part of the toilet and are mentioned over such a period of time as is covered by Hypocrates, Galen, Ovid, Appolonius and Martial.

Without giving any further examples it will readily be seen that dental science was a learned art some hundreds of years before the Christian era. And although Britain was the farthest outpost of the Roman Empire they do not seem to have left any evidence of this part of their culture in our island.

The general art of medicine seems to have lapsed into sorcery and a state of black magic. So much is this so that the words of the charms used can be traced back to those found in early Chaldean ritual. From the Saxons there has been left to us an interesting list of dental prescriptions, of which the following is an example: "For tooth wark: if a worm eat the tooth, take an holly leaf, hart wort and sage. Boil in water, pour it into a bowl, and pour over it; then the worms shall fall into the bowl." Thus we see that the period that elapsed between the classical and the renaissance, a period, which is so aptly termed the Middle Age, was marked by the greatest ignorance. Medical science of any value was practised only in the Monasteries and there is no record of what it was. The idea that worms were responsible for caries in teeth seems to have endured for some centuries.

Such works as were published on dentistry, the earliest being published in 1536, in Frankfort, were founded on the Hypocratic and Galenic systems. Bartelmeus Eustachii, in 1563, who wrote a work on dentistry, praises himself considerably for having read Aristotle, Galen and Hypocrates "through to the end," but he does nothing but quote from them. He even wrote the work in Latin, the literary custom of his time. It is Thomas Berdmore, in describing a polypus of the pulp, who tells us that such dental conditions had been accredited to the inroad of worms for centuries past. In the early Seventeenth Century appeared a very thoughtful observer in the person of Arnauld Gilles. He ascribes the cause

of toothache to the eating of too hot or too cold foods and recommends a list of foods that should be avoided. He was evidently acquainted with pus-producing conditions for he writes prescriptions "for tightening teeth which shake." He gives us a quaint list of various mysterious oils among which are "oil of paper," and the "oil of the yellow of an egg" to be applied on cotton wool to the offending tooth. He asserts that toothache is the worst of human suffering. In our own country it was in 1687 that a work was first published in London, but the author was so modest that he did not append his name. In the Seventeenth and Eighteenth Centuries incision of the gums was practised for aiding eruption of the teeth. This practice was first advocated by Keil and Waldschmiedt and not only was performed on children, but to relieve patients suffering from difficult eruption of the third molars.

Hurlock made a speciality of the eruption of teeth in children and he, with other writers, held the view that a good deal of infant mortality was the result of teething. The Bills of mortality were compiled by old women, known as searchers, whose duty it was to visit the deceased and record the cause of death, and it is a rather remarkable fact that such an uninspired and unenlightened method as this should have brought the fact to light, for dental surgeons of the time, particularly Hurlock in this country, gave it as their opinion from practice. With improved methods of medical science infant mortality is very largely reduced in our time, but the study of dentistry teaches us, albeit there is much controversy, that the early dentition in children gives cause for alarm.

It seems a curious thing, but the appearance of the teeth in the Eighteenth Century was considered so important that a very considerable practice was carried out in the transplantation of teeth. In cases for total extraction attempts were sometimes made to replace the teeth in their entirety by this method. An early caricaturist took this as one of his subjects. The custom was to pay young people from the streets so much per tooth to be extracted. The person of fashion, for it was persons of fashion who encouraged this sort of thing, sat by the victim, when the tooth was promptly replaced as soon as the offending tooth in one case and the healthy tooth in the other were extracted. Berdmore states in his book which was published in 1768, "In many instances where this transplanting of teeth has been thought to have succeeded well I am of opinion that a new crown has been grafted to the old root or that the extracted tooth has been replaced; and the patient has been made to believe that a new tooth extracted from another person for the purpose is placed and made to adhere in this manner." One may imagine that this practice must have been considerably abused, but even qualified practitioners were of opinion that the transplanted tooth could be successfully grafted. Jullion, in 1781, tells us, "thus much being promised on the patient's state: if the dentist makes a proper choice of the tooth to be transplanted and takes it from a young healthy person, and conducts himself through the operation with judgment and dexterity, the patient may expect success equal to his most sanguine wishes." But, he adds, "that the Venereal Virus may be communicated by this means." The operation of transplanting teeth we now know to be so difficult of success even under the most aseptic conditions that it is difficult to imagine how such a wholesale process, when asepsis was performed more by luck than judgment, could ever have met with any success at all.

Pulps were extirpated after they had been cauterised by the actual cautery in these days, a somewhat painful process. The method of filling teeth was to drill up the root canal after the tooth had been extracted, to fill it with some metal, preferably lead or gold, and ligature it in position. Berdmore tells us that it was his practice in old people, where progressive degeneration had taken place, to pass a gold wire through the tooth at the neck so as to ligature it more firmly.

Thomas Berdmore, who was dental surgeon to the King, wrote the first really general scientific work on dentistry and through it holds his profession in the highest esteem and is particularly bitter about charlatanry of any kind. He was one of the bitterest opponents of the wholesale transplantation of teeth and tells us that it was considered foppery to wear dentures by fashionable people. Berdmore's practice was of a very high order and he described the microscopic appearance of the enamel and dentine.

But the outstanding figure of the Eighteenth Century was Pierre Fauchard. In 1746 he published his famous work "Le Cirurgien

Dentiste," under letters patent of Louis XV. It perhaps explains the better dental education among the public on the Continent of Europe that as early as 1700 examinations in dental surgery were held in Paris and it was Fouchard who pointed out that these examinations were of very little use because no qualified dental surgeon ever sat upon them. Fauchard very nearly reached the truth in his description of the periodontal membrane. He says, "The interval between these crypts is occupied by a bony and spongy substance. As this substance is flexible, and gives easily, this flexibility prevents the teeth breaking off under great pressure." Perhaps the greatest thing that Fauchard did for posterity was to improve on the method of regulating teeth by ligaturing. It had been previously done by tying the teeth one to the other in the hope that this would correct their positions and as even Dr. Angle cannot always promise success, even after some of his elaborate and highly technical processes, we can imagine that without any anchorage this method was not likely to meet with much success. Fauchard devised the first orthodontic regulation arch. It was a simple semi-lunar band of metal that he figures with a series of holes drilled in it and the teeth were simply wired to this. However effectual or ineffectual it may have been it marked a new epoch in orthodontic surgery.

In conclusion let me indicate something of the difficulties with which qualified practitioners have been faced in the past. Galen complains bitterly of "That impudent fellow Thesalus at Rome," who professed to teach all that was known of medicine in six months. He says, "People being persuaded of the facility thereof, Sutais, Weavers and Craftsmen, leaving their handiworks, do, to-day, in troups, betake themselves to the profession of this most famous science, though to the destruction of mankinde, tracing the footsteps of such a matter." It was rather surprising that so famous a scientist as Pliny the elder should have dabbled in dental surgery as well as cavalry tactics and agriculture. But there is everything to show that his practice was merely quackery. It prescribes, for instance, for toothache a mixture of burnt excreta of mice and dried liver of lizards. His dissertation on toothpicks contained the very valuable information that those of vulture quills turned the breath sour, while those of porcupine made teeth firm. A man coming to him for toothache, he records, was sent away with a dressing of asafœtida and wax. Whether or not the tooth had been unsuccessfully treated before or whether the patient really believed in Pliny we do not know, but he rather unfortunately committed suicide. The distinction in the Seventeenth and Eighteenth Centuries between the qualified and the unqualified men was "The common tooth-drawer." We are told that the barbers who did a large trade in tooth drawing used the teeth so extracted to decorate their premises. Whatever sort of living these men may have made, a list of fees, such as follows, would seem that dentistry was a much more lucrative profession among qualified practitioners than it is now.

	£	s.	d.
Transplanting a living tooth ...	5	5	0
Transplanting a dead tooth ...	2	2	0
Filling with lead	0	5	0
Filling with gold	0	7	6
A complete set of human teeth with gold springs	73	10	0
Pivoting a tooth	2	2	0

Such were the fees charged by Paul Eurialius Jullion, who lived at the end of the Eighteenth Century.

The most important part of Jas. Ruspini's treatise on dentistry, the son of the famous philanthropist, Chevalier Ruspini, dental surgeon to George IV., was his remark that "That branch of medical science which has for its object the preservation of the teeth and gums, and the cure of the diseases for which they are liable, must be regarded as of the highest importance to mankind, and the practice, as no less respectable than any other branch of the human art." So that the earnest workers of the past evidently experienced the difficulties comparable to those which confront the practitioners of to-day in the carrying out of their professional duties.

It is comforting to observe that the example set by Hypocrates has been carried out throughout the ages, and it is to be hoped that by the proper education of the public and conscientious attention to general conditions in the mouth, in conjunction with the act recently passed, that dental science will be rid of its handicaps and take its proper place in public service. Galen's words are no less a fine example than those of Hypocrates, "But I (for what reason I know not) from my very youth

have wonderfully undervalued the applause of the people . . . being given to the study of knowledge, and the desire of truth, judging that there was no greater happiness for men to enjoy."

I do not intend to carry our story very much further as the work of John Hunter in our own time is too eminent to be classed among the historical works. It must be mentioned, however, that Hunter was the first to describe the cause of tic douloureux by stimulation of the gasserion ganglion by pus tracking up the inferior dental canal.

The first dental surgeon to be appointed to a hospital was Joseph Fox, who in the Spring terrm of 1799, delivered a course of lectures on dentistry at Guy's Hospital before the opening of the Medical School. He was followed by such renowned men as Thomas Bell, who was a Fellow of the Royal Society, the Botanist, James Salter and Thomas Moon, who invented the probe now in use in extractions.

This résumé is necessarily brief and somewhat sketchy, but it may serve to show how great is the crown that modern knowledge can place on the work of so vast a period of time.

Dental Travelling Scholarship.

A Scholarship enabling the holder to take out a Course of at least six months' practical work in Dental Surgery at one or more Colonial or Foreign Dental Schools, will be awarded by the Treasurer, upon the recommendation of the Dental Council, in July next. The conditions attached to the Award are as follows:—

1. Candidates must be registered Licentiates in Dental Surgery of the Royal College of Surgeons of England or holders of a Dental degree of a British University, who have been educated at Guy's Hospital Dental School.
2. The Scholar will be required, within the twelve months succeeding his appointment, to take out a course of at least six months' practical work at one or more Colonial or Foreign Dental Schools or Colleges previously approved by the Dental Council.
3. The Scholar will be required to present to the Dental Council a report of the work which he has done during the period of his Scholarship and a certificate from the Dean or other responsible official of the School or Schools to which he has been attached, giving details of such work done, and the time occupied thereon.
4. The total value of the Scholarship will be £250, of which, unless otherwise ordered, £150 will be awarded upon the appointment of the Scholar and the remainder upon the completion of the Scholarship and the approval of the Report by the Dental Council.
5. The Scholar will be required, if desired by the Council, to act as a Staff or Extra Demonstrator of Practical Dentistry during the Academical year following his residence abroad.

Applications should be sent in to the Treasurer, Guy's Hospital, London, S.E.1., not later than July 1st, 1925.

Publications Received.

The British Medical Journal, The Nursing Times, The Hospital Gazette, The Broad Way, The Sydney University Medical Journal, The King's College Hospital Gazette, The Architectural Association's Journal, The St. George's Hospital Gazette, The Medical Journal of South Africa, The Dental Record, The Prescriber, The Cambridge Gownsman (5 numbers), *The St. Bartholomew's Hospital Journal, The Long Island Medical Journal, The University, The Canadian Medical Association Journal, The Antiseptic, The Queen's Medical Magazine.*

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The Hospital's Contributions.

BELOW are published the approximate collections to date from those directly connected with the Hospital at the present time. These figures bear splendid testimony to the effort being made at Guy's itself towards clearing off our debt of £200,000.

	£
Governors	24,000
Permanent Staff, Surgical and Medical	12,000
Old Guy's Men (excluding Dental) ...	2,700
Students (excluding Dental)	2,700
Guy's Hospital Nurses' League ...	2,200
Guy's Hospital Employees' Association	1,600
Dental Staff and Past and Present Dental	1,000
Disguysed Minstrels	600
Massage Department	500
Light Department	200
Guy's Hospital Ladies' Association ...	130

The response from the Governors and Permanent Staff is truly splendid, and the collection by the Nurses calls for the utmost praise and gratitude from the Hospital. It is a collection of which every nurse may justly be proud. The Nurses' Collection is closely followed by the Guy's Hospital Employees' Association, whose grand total is worthy of their hard work and perseverance.

The Disguysed Minstrels have also collected a splendid sum. The amount of time the members of this troupe have given for their Hospital, the many private engagements they have so graciously given up for their performances, together with many personal and professional inconveniences, should arouse the greatest admiration from all at Guy's. Everyone might ask himself, "Have I done as much?"

There are many at Guy's who can answer "yes" to this question, but there are also very many who, as far as the Appeal Committee is aware, have not yet responded to our Treasurer's call. When one sees what the Nurses, the Massage and the Light Departments have done, will not every student come forward and make certain that his name appears on the list of donors of this great appeal.

It may be the only occasion when you are seriously asked to help your hospital in your life-time. The Treasurer hopes that every old Guy's man and student will give something, however small.

There are no doubt many collections outstanding, of which at present the Appeal Committee is ignorant, but when comparisons are made one feels that if only the true position was understood the response from old Guy's men and students would be greater.

There are nearly 5,000 old Guy's men and 750 students, including medical, surgical and dental. Excluding the permanent staff, about £4,500 has been collected by about 5,750 Guy's men. In view of the fact that some individual collections and donations have been quite large, the average is not very encouraging.

The Governors, staff, nurses and employees have given a splendid example of what can be done. Surely the old Guy's men and present students will keep up this high standard and allow Guy's Hospital to carry on with it's proud record unhampered.

Collecting books or boxes are available on application to the Secretary to the Treasurer, The Counting House, Guy's Hospital, and all help will be obtained there for any suggested dances or entertainments in aid of the appeal.

Result of Gold Watch Competition.

Mr. M. Bannounah most kindly organised a competition for a gold watch on behalf of the appeal.

The winner was Mrs. B. Price, 22, Great Lard Street, Dover Street, Southwark.

By this competition Mr. Bannounah raised £21 1s. 6d. for the hospital, which is a most praiseworthy result.

Disguysed Minstrels.

Details of the performance given at Woldingham, through the kindness of Dr. and Mrs. Poulton, will be published in the next number of the GAZETTE.

The Minstrels' next performance will be at Streatham Hall, on Friday, March 20th, at 8 p.m. This is a large hall, and all those living in or near Streatham are sincerely asked to give all help possible with the sale of tickets.

Posters, leaflets and tickets are obtainable at the Counting House, Guy's Hospital.

"The Hippolytus."

English Version by GILBERT MURRAY, Tuesday, February 24th, 1924.

Guy's Hospital Matinee.

Aphroditê	... ...	ZILLAH CARTER.
Artemis	... ...	SYBIL THORNDIKE.
Theseus	... ...	EUGENE LEAHY.
Phaedra	... ...	SYBIL THORNDIKE.
Hippolytus	... ...	NICHOLAS HANNEN.
Nurse	... ...	BEATRICE SMITH.
A Henchman	... ...	LEWIS CASSON.

Producer ... ... LEWIS CASSON.

A PLAY, unlike a poem, an essay, or a novel, each, as it were, a direct tête-à-tête affair between author and reader, is necessarily a multiple piece of art, whose essence if carelessly handled may in its final distillation reach the audience grossly adulterated. The Actors, the Producer, and in this tragedy the Translator, have all their parts to play, the one no less than the other, yet their efforts must be compacted into a homogeneous whole, so that when the curtain lifts, the magic wand is jointly wafted and the author's progeny breathes and lives again as brightly as when he first conceived it.

It was no little achievement, then, on the part of Mr. Lewis Casson, and of his company, to have won such enthusiastic applause as that which greeted the end of the performance, for the usual difficulties of rendering a play successfully are increased when one ventures to stage an Athenian drama such as *Hippolytus*. First, there is the fact that Euripedes wrote his play some 2,300 years ago, and, furthermore, that he wrote it in accordance with a stage technique alien to our own; that it was to be acted in a setting with which we moderns are not acquainted; and that its theme is commonplace, being one of "*les sujets*," as a French critic talking of Racine's Phèdre points out, "*toujours les mêmes que les journaux et les tribunaux offrent à notre sensibilité avide de se dépenser.*"

The story of the play is the unfolding of Phaedra's unrequited love for her stepson, Hippolytus, but whether it was the genius of Miss Sybil Thorndike or that something is implicit in the part itself, we must confess that with the early disappearance of Phaedra from off the stage to kill herself, the rest of the piece forfeits our sympathy, which is revived only by some exquisite passages of poetry. Phaedra enlists our sympathy because in this immense, incestuous love which has overwhelmed her, she presents such a lonely figure. Her nurse, surely the one woman who might have soothed her charge back to peace of mind, is incapable of understanding the real anguish which torments poor Phaedra's heart, or her longing to escape into a world where the enigma of passion can no longer perplex the soul.

Phaedra.

Oh for a deep and dewy spring,
With runlets cold to draw and drink!
And a great meadow blossoming
Long-grassed, and poplars in a ring,
To rest me by the brink.

Nurse.

Nay, child! Shall strangers hear this tune
So wild, and thoughts so fever-flown?

Phaedra.

Oh, take me to the Mountain! Oh,
Past the great pines and through the wood,
Up where the lean hounds softly go,
A-whine for wild things' blood,
And madly flies the dappled roe.
O God, to shout and speed them there,
An arrow by my chestnut hair
Drawn tight, and one keen glimmering spear—
Ah, if I could!

Nurse.

What wouldst thou with them—fancies all!—
Thy hunting and thy fountain brink?
What wouldst thou? By the city wall
Canst hear our own brook plash and fall
Downhill, if thou wouldst drink.

Phaedra.

O Mistress of the Sea-lorn Mere
Where horse-hoofs beat the sand and sing,
O Artemis, that I were there
To tame Enetian steeds and steer
Swift chariots in the ring.

Nurse.

Nay, mountainward but now thy hands
Yearned out, with craving for the chase;
And now toward the unseaswept sands
Thou roamest, where the coursers pace!
O wild young steed, what prophet knows
The power that holds thy curb, and throws
Thy swift heart from its race?

Nor is the object of Phaedra's love less austere. Hippolytus is a prig. He is an apostle of muscular Christianity, with all the lack of forbearance, of flexibility which distinguishes that company. What youth of to-day would be tolerable, to whom when a woman's love, however embarassing, is revealed, bursts out with—

Our white torrent's spray
Shall drench mine ears to wash those words away!
And couldst thou dream that I . . ? I feel impure
Still at the very hearing?

Phaedra's resolve that—

he shall stoop to share
The life I live in, and learn mercy there!

is a just one, although devilish in its execution.

Of the acting throughout the play, what shall we dare say, except that it was uniformly magnificent? After all, one cannot bestow higher praise than by saying that the actors fulfilled the author's conception of the originals. And Mr. Nicholas Hannen *was* Hippolytus, Mr. Eugene Leahy *was* Theseus, Mr. Lewis Casson *was* a henchman with a thrilling story to tell, Miss Beatrice Smith *was* the nurse.

As for Miss Sybil Thorndike, one doesn't praise, as Mr. James Agate says, a rose for being a rose.

The Oxford and Cambridge Club Dinner.

March 4th, 1925.

I AM not an Oxford and Cambridge man in the same way that the members of this Club are Oxford and Cambridge men. I am a keen supporter of Oxford and Cambridge and wear my ribbon during the boat-race season, but artistically I am not a batchelor. This must have been the reason for my feelings as I surveyed the works of art that adorned the walls of the dining-room. As a batchelor, I might have appreciated them; as a man, wedded to art as it were, I felt guilty of infidelity. I was invited to attend this annual dinner by a dear old friend of mine, to whom I shall refer as Mr. Oxbridge, and in due course found myself standing behind my chair at table, in doing which I but followed the example of my forty-six fellows. There we stood, as select a body of men as ever gathered to break bread and in our midst, outstanding but genial, stood the chairman, Dr. Hector Cameron. We awaited his grace and it seemed as though he understood this, for suddenly he straightened his shoulders, lifted his head and was about to call down a blessing—when his eye was arrested by a naiad, clothed in all the majesty of art and he sank into his chair, the grace unspoken.

Seated between Mr. Oxbridge and another whose identity I shall hide beneath the title of His Reverence, the work of the evening sped quickly and delightfully. I say work for I am accustomed to associate dinner with a cut from the joint and two vegetables, followed by sweetmeats of flour and suet. A longer and more varied menu is difficult to ingest and the work entailed in its consumption increases as the number of dishes grows. His Reverence found himself in a similar predicament and allowed his "mousse" to grow warm upon his plate. With pleasant and quite unusual conversation, I say, the evening's work was done and gave place to the enjoyment of the speeches. These were many and I shall relate most of them, but of the songs I shall only say that whether L. Forman, R. B. Fawkes, K. Woodruff, P. D. J. O'Meara, H. E. Harding or the Dean sang best would be a very difficult matter to decide. The

Dean certainly has some very exceptional notes but, like so many modern artistes, he did not sing in English.

The first speech was a business speech by one of the Joint Honorary Secretaries, a fitting name for a dinner organiser. Mr. Scholefield said that he would like Mr. Pye-Smith to be elected the Secretary for the following year (and everyone else said so would he), and would like next year's chairman to be elected by Dr. Cameron (who promptly and almost maliciously elected Mr. Hughes). That concluded the business, unless anyone objected to the dinner being held in Lent and anyhow he, Mr. Scholefield, had organised this one exceedingly well and was deserving of the highest praise.

Mr. Hughes then rose, announcing that he would toast the ghosts of the testy guests. He was, he said, very sensible, but suffered from a hole in his antrum of Highmore. There was a distinguished list of guests, headed by Mr. Bellingham-Smith, who stood alone in the worlds of science, art and coffee-tasting. His services had lately been retained as consultant to a firm of refreshment caterers, to whom his passion for coffee-tasting would prove invaluable. Mr. Dowling he knew best as an authority on the divers brands of beer obtainable in the South of England, and Mr. Housden—but here he stopped, saying that dinners were sometimes reported in the Guy's Hospital GAZETTE, that one speech of the Bishop of Bompopo had actually been reported verbatim, that anything he had to say of Mr. Housden would be unfitted for the pages of the GAZETTE and he begged leave to resume his seat. (The accumulated funds of the GAZETTE will never have been spent in a more noble cause, than in refuting this libel in the open courts.—ED.)

The Dean then overcame a misunderstanding with the legs of the table and said that a pistol had been held to his head. The reason for this was undoubtedly that the chairman came from hell, the fire having gone out there and made it very much the same as Glasgow. He then revived some fine old jests about the Forth Bridge and Big Ben, and thanked Mr. Hughes for his kind words.

Mr. Bellingham-Smith rose in a state of indignation. When asked to dine with the Oxford and Cambridge that evening he had expressly said, "Am I to come to enjoy the evening, or am I to make a speech?" The two things clashed and he felt that he had been tricked. As for Mr. Hughes—Mr. Hughes had stopped him in Harley Street the other day and looking him sorrowfully in the face, had said, "You look well and I think you are well, but, seeing your age and the life you've led, you ought to be a mass of infirmities!" Bah!!!

Dr. Barber now made a very feeling speech, proposing the Chairman's health, a speech that moved Mr. Bellingham-Smith to shake the Chairman long and warmly by the hand, after which he proceeded to roll a cigarette with an expression of benevolence, that radiated forgiveness even of Mr. Hughes.

Dr. Symonds made a speech and Dr. Hunt made a speech; Mr. Scholefield made a speech and Mr. Pye-Smith made a speech; but Mr. Scott refused to make a speech. He said that the last one he had made had been so grossly misrepresented in the GAZETTE that he refused to make another and sat down in high dudgeon. (We doubt if the accumulated funds will run to two libel actions, but hope for the best.—ED.)

The speech of the evening was then made by Mr. Gaymer-Jones, who displayed such a love of beauty, so much, if we may say so, vertu, that even the decorations on the walls assumed a newer and more beautiful meaning. The speech is reported in full, from notes taken during its delivery.

"Gentlemen, I thank you for the invitation that has given me such a very enjoyable evening. The dinner has been delightful, the company superlative and the conversation wonderful. It commenced with a comparison between the male and female figures and some of those around me seemed to think that the male form was better than the female form. But I disagreed. And then I said to myself, why do I disagree, and I think it was that the others were thinking in a calculating sense. Let us consider peacocks and peahens. We should take the human standpoints and look on them as we look on peacocks. Gentlemen, I admire the female form.

"Next we discussed the dishes. I preferred the joints to the other dishes, but those around me preferred the other dishes to the joints, and again I asked myself why do I differ from those around me. And I was left wondering. I think it must be that I am appreciative and they are calculating.

"Then we discussed the flowers and I found that the others liked the yellow flowers, while

I liked the red ones. Perhaps it is that I have somewhere some Italian blood, but the red flowers are passionate, the yellow ones are fickle. I don't know what colour this is (and here he took from the vase a claret coloured tulip), but it is most aesthetic. It is a mixture of the passionate and the fickle and what is there better? And so it claims first place."

Mr. Gaymer-Jones then repeated some verses of botanical interest, of which unfortunately we have no copy, and concluded his speech amid a furore of cheering.

Further speeches would have formed an anti-climax and I went in search of my hat, muttering a heart-felt "God Bless Oxbridge."

Guy's Hospital Christian Union.

A MEETING was held in the College Smoking Room on February 27th, Dr. Fawcett in the chair, when Dr. H. T. Holland, of the C.M.S. Hospital at Quetta, India, spoke of his experiences in the mission field.

Dr. Holland began by recalling his last visit to Guy's, twenty-six years ago, when he was travelling secretary of the Student Christian Movement, and told us how much the missionary societies owed to that movement for continued support and maintenance of interest at home.

As regards becoming a missionary, he did not think that, as had been said, a man must be either a fanatic or an ass, it being quite a normal thing for a man who had really found out the greatness of Christianity to try and spread a knowledge of it. A medical missionary did not have to preach, but in practise he found that he did not want to keep his knowledge of Christ to himself, and was anxious to pass it on to his patients. The modern Christian doctor had very great opportunities, with all the resources of science behind him, to bring Christian ideals and principles into their lives. And he reminded us of the large part that healing took in Christ's ministry on earth.

He then went on to discuss the popular idea that medical work in the mission field is only of a second-rate standard, and said that although it was not a financial success, it involved no sacrifice of scientific principles. There were great opportunities for good work, and big practices could be built up, and he commended this to our notice in these days of overstocking of the profession at home. He instanced two young doctors who began in a small way in a native village in Africa, and in five years had founded a hospital with 200 beds, and in addition had obtained 300 converts to Christianity. Again, Union College, Pekin, which began as a missionary college, had qualified for help from the Rockefeller Trust, whose high standard was well known, so that there was scope for the best men and first-grade leaders. As regards clinical work, he himself had arrangements made up to 1928 for doctors, mostly from America, who wished to see his ophthalmic clinic. He gave us some figures from his annual visit to Shikarpur in 1924, where in six weeks he and three colleagues saw 7,000 new cases, and performed over 2,000 operations, including 1,450 for cataract. On one day they performed 198 operations, including 114 for cataract.

Dr. Holland then discussed the Indian Medical Service. There was, he said, a modern tendency to look down on this service because of racial feelings. Now feelings of racial superiority were all wrong, and he feared that their continuance would ultimately break up the Empire. In the old days it was said that the Britisher was all right if he was sympathetic. Nowadays Indians resented the patronage implied by our sympathy; what they did welcome was co-operation, if not at the expense of their self-respect. There was a fine opening in the I.M.S. for men who were willing to serve, and it gave many opportunities for philanthropy, though Government servants were, quite rightly, not allowed to interfere with native religions. He had himself, he admitted, started out on the plane of racial superiority, and more recently had for some time been "pro Dyer," but could now see the enormous harm that had been done to the British Raj by General Dyer's action. A prominent I.C.S. man had said to him that Dyer sounded the death knell of the British stay in India. An Indian had put it that

he did not blame Dyer, who made a mistake; what rankled was the idea of a large number of people in England backing him up through the medium of the *Morning Post*. The differences in the treatment accorded to Indians in England and in India were the chief causes of racial animosity. Hence there was none on the Frontier, where no natives had visited England.

As regards conversions, he had seen five in twenty-five years. On the frontier they were up against Islam, from which conversions were rare, any Afghan embracing Christianity risking death or exile. In fact, two converts had their throats cut by their fanatical kinsmen as soon as they returned home. However, the medical missionary by the nature of his work had great opportunities for breaking down fanaticism, as shown by the great respect and affection which they had already won throughout the Frontier. Dr. Holland was not downcast by lack of converts, knowing that he was preparing the ground for his successors. Christianity is caught, not taught, he reminded us, and the existence of Christians in their midst was having a marked effect on these people.

Dr. Holland then brought his extremely interesting talk, given with all the enthusiasm of a man thoroughly in love with his job, to a close with further reference to the fine opportunities for real Christian service in the mission field, and the meeting closed with hearty votes of thanks to Dr. Holland and Dr. Fawcett.

Week-End Conference.—It is felt that in the few years we spend at Hospital, our lives are so crowded out with a succession of lectures, classes and duties, that little time is left over for viewing life as a whole, for standing back to see ourselves and each other in relation to the big and comprehensive ways of God and man.

To this end, during the week-end March 28th—30th, a conference for London medical students is being held at High Leigh, a country house in Hertfordshire, fifteen miles from London, and it is hoped that Guy's will be well represented at this conference. Details of programme, speakers, cost, etc., can be obtained from C.U. committee members or from C. W. Marshall, C.U. secretary.

Correspondence.

Cross-Word Puzzle.

DEAR SIR,—I should esteem it a favour if you would publish the result of our Cross-Word Puzzle which appeared in last week's issue of the GAZETTE.

The following supplied correct solutions—M. F. Butler,* J. Wisemen,* J. M. Turner,* Henry Brown, E. O. Walford, R. C. Brock, E. S. Rudaizky, Harold J. Selby, D. F. Durward, S. C. H. Lane, F. N. Newnham.

Thanking you in anticipation.—Yours truly,
The Holborn Surgical Instrument Co., Ltd.
MARK C. RIMMER, Managing Director.

(*The first three opened, and therefore the winners.)

Guy's '89 Club.

DEAR SIR,—The Guy's '89 Club are holding their Annual Dinner on the second Wednesday in May, the 13th, at the Hotel Cecil. Dr. Frank J. Nicholls will be in the chair, and I hope that we shall have a good attendance of members to support him.—Yours faithfully,

GERALD S. HOVENDEN,
Hon. Secretary.

Barnes, S.W.13.

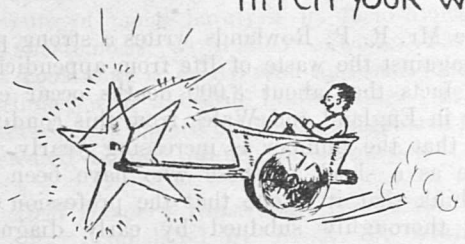
Guy's Hospital Reports.

THE new series of the "Guy's Hospital Reports," which has been edited since 1921 by Dr. Hurst, is offered to Students at the reduced rate of 30s. per annum. All new subscribers, in addition, are given an opportunity to buy back volumes at a further reduced rate.

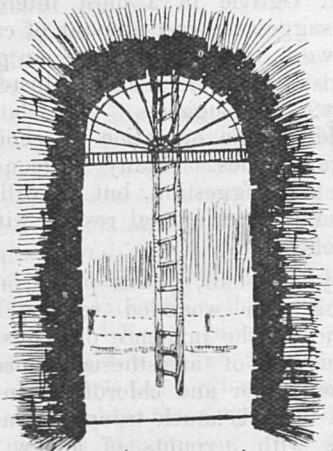
The Reports are published quarterly and it is to be hoped that a large number of unqualified men will take advantage of this most exceptional offer.

Full particulars of subscription, and rates for past volumes can be obtained from the Wills Librarian, to whom subscriptions are payable.

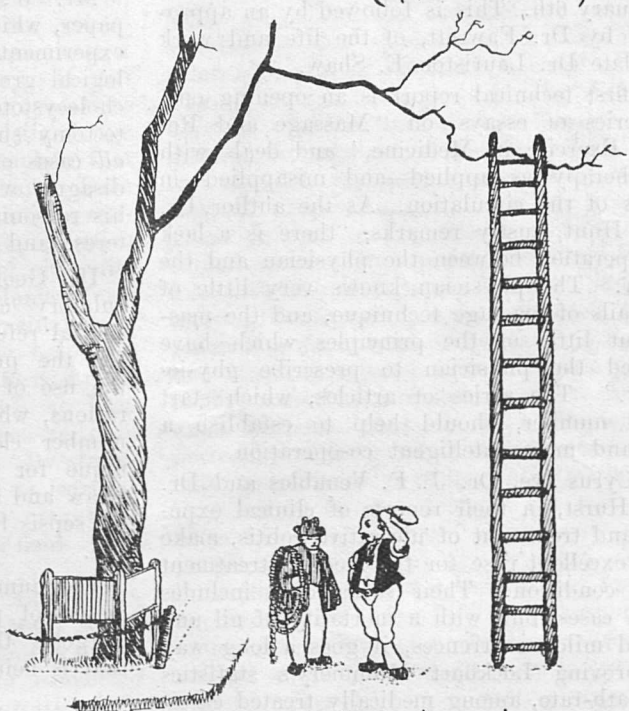
"HITCH YOUR WAGON TO A STAR"
—Emerson.



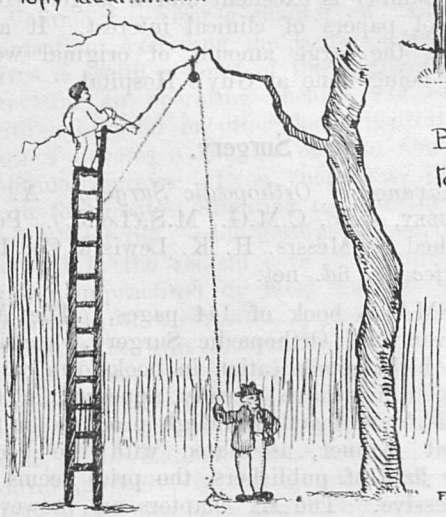
Excellent in theory — but not in practice.
(cf Isaac Newton)



Seeing a ladder with distal extremity in the clouds, I thought the Works Department were really going to perspire to this lofty ideal.....



But "when I sees wot they done, I sez to myself, 'My Gawd! wot 'as they done?'"



F.C.T. 1925.

Well, anyway —

thank God, there was a hospital handy.

Reviews.

General.

Guy's Hospital Reports. Vol. 75, No. 1. Published by Messrs. Wakely & Son (1912), Ltd. *Price* 12*s.* 6*d.* net.

THE first number of volume 75 of the "Guy's Hospital Reports" commences, appropriately enough, with the sermon, delivered by the Bishop of Oxford at the Commemoration Service in Southwark Cathedral on January 6th. This is followed by an appreciation, by Dr. Fawcett, of the life and work of the late Dr. Lauriston E. Shaw.

The first technical report is an opening one, of a series of essays, on "Massage and Remedial Exercise in Medicine," and deals with physiotherapy as applied—and misapplied—in diseases of the circulation. As the author, Dr. G. H. Hunt, justly remarks, "there is a lack of co-operation between the physician and the masseur. The physician knows very little of the details of massage technique, and the masseur but little of the principles which have prompted the physician to prescribe physiotherapy." The series of articles, which start in this number, should help to establish a closer and more intelligent co-operation.

Dr. Cyrus Ive, Dr. J. F. Venables and Dr. A. F. Hurst, in their reports of clinical experience and treatment of ulcerative colitis, make out an excellent case for the medical treatment of this condition. Their series only includes thirteen cases, but, with a mortality of nil and few and mild recurrences, it goes a long way to disproving Lockhart Mummery's statistics of a death-rate, among medically treated cases, of 78 per cent.

Two short accounts of investigations to discover the value of finding leucocytes in the gastric "resting-juice" and of neutral red in the estimation of gastric function, seem to show that in each case it is almost negligible.

An account of the treatment of asthma at Mont Dore, with a note on the four other spas of Auvergne, is contributed by Dr. A. F. Hurst, who, after personal experience of it, is convinced that it is of real value and deserves to be better known in England than it has been in the past.

A medical autobiography, by a victim of rheumatoid arthritis, contains points of interest while Mr. R. P. Rowlands writes a strong protest against the waste of life from appendicitis. The facts that about 3,000 deaths occur each year in England and Wales from this condition and that the number is increasing yearly will come as a shock to those who have been led to think that it is one that the profession has now thoroughly subdued by early diagnosis and surgical treatment.

Mr. W. H. Ogilvie in a most interesting paper, which suggests a vast amount of careful experimental work, makes out a case, on pathological grounds, for cholecystectomy instead of cholecystotomy. He suggests "that cholecystectomy should be the operation of choice in *all* cases of gall stones." Many surgeons will disagree with this suggestion, but all will read his reasoning and experimental results with interest and profit.

Dr. Geoffrey Marshall, in his paper on circulatory changes in wounded soldiers, with special reference to the influence of drugs used for the production of anæsthesia, deprecates the use of open ether and chloroform in operations, where there is much trauma; and the number closes with accounts of a new technique for the sigma reaction by Dr. M. E. Shaw and a case of anæmia, secondary to dental sepsis by Mr. G. C. Exner and Dr. Cyrus Ive.

The number is excellent and is largely comprised of papers of clinical interest. It also suggests the large amount of original work that is being done at Guy's Hospital.

Surgery.

The Advance of Orthopædic Surgery. A. H. TUBBY, C.B., C.M.G., M.S.(Lond.). Published by Messrs. H. K. Lewis & Co., Ld. *Price* 7*s.* 6*d.* net.

A SMALL book of 144 pages, "The Advance of Orthopædic Surgery," consists of the republication in book-form of six articles, which have already appeared in the *Clinical Journal* and, although produced in the excellent manner, associated with the books of this firm of publishers, the price seems to us excessive. The six chapters are, however, illuminating, in bringing before the reader

the remarkable results now achieved by the orthopædic surgeon, a noticeable one being the cure of facial paralysis by facio-hypoglossal anastomosis, as related on page 98. It is a book that is easily read and each chapter concludes with a useful bibliography. It will doubtless find a place on the bookshelves of those interested in this branch of surgery.

Practical Surgery Illustrated. By VICTOR PAUCHET, translated by F. R. B. Atkinson, M.D., C.M.(Edin.). In 6 volumes. Published by Messrs. Ernest Benn, Limited, London. *Price* 18*s.* 6*d.* net. per vol.

PRACTICAL Surgery Illustrated is not a text-book of operative surgery. It consists of illustrated accounts of operations as practised by the author, and at times the illustrations are so clear and so complete that the text becomes almost unnecessary. Each volume is obtainable separately and is self-contained and the printing and reproduction of the drawings of Mons. S. Dupret are quite excellent. Altogether the four volumes form a series of "living pictures" of actual operations, and will be of the greatest help and interest to the practical surgeon. It is a work that we highly recommend, not only to him, but also to the student, who wishes to gain a clear idea of operative procedure. By studying the illustrations he will be able to learn as thoroughly as if he could watch operations on the living subject in a bloodless field. The illustrations are as good as that.

Volume 1.—After a chapter on "surgical organisation, excluding the large centres," which gives a useful account of the equipment necessary for an operating theatre, not connected with a hospital or other large institution, the author devotes a chapter each to femoral and inguinal herniæ. Each chapter is illustrated with the greatest attention to even the smallest detail, and the "endo-peritoneal" method, advocated in the radical cure of inguinal hernia is one unpractised by most English surgeons. Hydrocele of the tunica vaginalis, gangrenous appendicitis with peritonitis, adenoma of the breast, hæmorrhoids, post-operative herniæ, transverse suprapubic laparotomy in gynæcology, vesico-vaginal fistulæ, excision of a papilloma of the bladder and abdomino-perineal removal of cancer of the rectum, form the subjects of the next nine chapters, chapter thirteen being devoted to the treatment of "Lane's disease," defined as "visceroptosis combined with chronic intestinal stasis." The medical and surgical methods of treatment are considered, and the answers to objections raised against total colectomy, which is the author's operation of choice, are copied, almost verbatim, from an article by Sir Arbuthnot Lane. Chapters on gastric and duodenal ulcers, post-operative jejunal ulcer and ulcer of the stomach and Lane's disease complete this volume.

Volume 2.—This volume deals largely with carcinoma of the cervix uteri, rectum, stomach and kidney, and advocates the use of radium in many cases. After a description of cerebellar decompression for tumour, under local anæsthesia, the operative and radium treatments of cancer of the cervix are fully discussed, Faure's method being described by J. L. Faure himself. In the treatment of fibroids, the indications for the use of X-rays and radium and for myomectomy and hysterectomy are considered. The technique of radium treatment is given in full and excellent pictures are included of an operation for abdominal hysterectomy, again with the transverse supra-pubic incision. Chapter five is concerned with nephrectomy for cancer of the kidney, the operation illustrated being that of "trans-peritoneal nephrectomy," a combination of the intra- and extra-peritoneal routes. In a chapter on hypertrophy of the prostate, the illustrations refer only to perineal prostatectomy, while, discussing cancer of the stomach, the author gives it as his opinion that "every acute ulcer, in people forty years of age or more, should be immediately operated upon, without losing time by medical treatment." The technique of complete gastrectomy (for ulcer or cancer) is described and illustrated, also the indications and method of performing "gastro-enterostomy in Y" for gastric and duodenal ulcers. Hemigastrectomy, cæco-plication and complete colectomy for congenital mega-colon follow and the volume concludes with a discussion on cancer of the rectum, wherein are described a method for performing colostomy and the abdomino-perineal operation of excision.

Volume 3.—Volume three opens with accounts of the indications for radicotomy (posterior root section) by J. A. Sicard and of its technique by M. Robineau. The illustrations of this latter account, fifty three in number, make the text unnecessary, they are so exceedingly clear and detailed. In chapter three C. Dujarier discusses and describes the operative treatment of recent fractures, which he advo-

cates for practically all fractures of the long bones with displacement. Plating the shaft of the humerus and encircling an oblique fracture of the tibia with steel bands are illustrated. Cancer of the tongue is discussed and the operation of amputation described and illustrated, the following forty pages being devoted to the treatment of goitres. The author reports thirteen hundred operations on the thyroid with only one death, which was not considered to have been caused by the operation. The surgical treatment of gastric and duodenal ulcers receives consideration, the operations illustrated being invagination of the ulcer with gastro-enterostomy, gastrectomy and gastro-pylorectomy. The tumours of the large intestine receive full treatment, including the influence of Lane's disease on the production of cancer and the clinical signs of cancer of the colon. Operations for segmentary and complete colectomy and for removal of the sigmoid and rectum are illustrated and the volume concludes with an illustrated account of Freyer's methods of prostatectomy.

Volume 4.—This volume commences with descriptions of operations for recurring dislocation of the shoulder and amputation of the breast and marginal gastro-enterostomy performed under splanchnic anæsthesia, is then described and depicted. The chapter devoted to the surgery of the biliary passages contains an account of the symptoms, complications, diagnosis and treatment of cholecystitis, intestinal stasis being held responsible for catarrhal cholecystitis and cholecystectomy being generally held to be preferable to cholecystostomy. The former operation is depicted both by the direct route and from below upwards, as is a method of performing choledocho-lithotomy. Appendicectomy is described together with cæco-plication, for the author states "a great number of chronic appendicitis are improved, not by removal of the appendix, but by plication." Right hemi-colectomy for cancer of the cæcum occupies chapter six, which is followed by an account of the indications for an iliac anus, with an illustrated account of its technique. The remaining chapters are devoted to grave forms of colitis, cicatricial stricture of the rectum, recto-vaginal fistulæ, the treatment of retroversion, perineal hysterectomy and aseptic tumours of the adnexa. In the treatment of retroversion, the author strongly deprecates the use of ventro-fixation, and describes a simple operation, devised by himself.

While congratulations are due to the author on the excellence of his four volumes, the artist, to whose illustrations they owe so much, must share largely in them. Two more volumes are to complete the series, and we look forward to reading them with the greatest pleasure.

Sport.

Rugby Football.

Guy's v. Birkenhead Park.

ON Saturday, February 28th, it was our turn to go to Liverpool and try conclusions with Birkenhead Park on their own ground. Unfortunately we could not muster a full team. Graham-Davies was playing for Wales and Van Schalkwijk was not quite fit. Kurtz and Visser took the places of Hutchinson and Vorster in the pack. We lost the game by 11 points to nil, and the chief cause of our undoing was H. M. Locke, the International centre threequarter. He was very powerful indeed in defence and Neaze's tries were undoubtedly due to the openings skilfully made for him by this distinguished player. The only score before change of ends was gained by J. P. Oldham. The margin was not so great but that it looked as though we might pull the game round, especially as the game was much more in our favour since the change of ends. Doggedly our men stuck to the task, and with only a few minutes to go, the score against us had not risen, but unfortunately had not put on points for ourselves. The last few minutes, however, sealed our fate completely, as E. C. Neale, with Locke's assistance, gained a couple of good tries, and, one being converted, we left losers by 1 goal 2 tries to our clean sheet.

Guy's Team.—B. G. Boyle; W. Leslie, G. Fellowes-Smith, P. D. B. Spence, G. Clark; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, W. H. Myburgh, J. W. Schabort, C. Kurtz, J. Popplewell, J. P. Visser.

It should be stated that Birkenhead Park lacked the services of J. R. Paterson, who was playing for Scotland versus Ireland.

Guy's v. King's.

3rd and Semi-Final Round, Inter-Hospital Cup Competition.

ON Thursday, March 5th, a game much looked forward to by the players and Hospital players of years gone by, was utterly spoilt by the official in charge of the game: and one doesn't say this because we did not win, as any unbiassed spectator must have been thrilled with the display of King's. They played like a team of seasoned men, and on the afternoon's play had hard fortune in not winning.

We had the wind to start with, and at once had the best of matters. Frequently the ball came our way, but we didn't make the best use of it, though we were very much more on the King's side of the line than our own. But gradually King's got going better forward, which was their strongest part of the game. Cove-Smith, Collis, MacMyn and Taylor are a pretty hefty 50 per cent. of a pack. Then came about three kicks for different infringements against us, and with much whistling we were driven back. This was about twenty minutes from the start. Then came a couple of rushes by King's. MacMyn and Wade were nearly over, but Graham-Davies kept them out. A penalty against us in the King's 25 and two or three more free kicks carried play on to nearly half time. Our men were now playing like a team of discouraged men, and no wonder. It was difficult work for them. Just before half-time Preen was hurt, and never got up a gallop afterwards. A great run by Fellowes-Smith and a follow up by Durr led to a try almost as soon as the game recommenced. No conversion followed. On the other side Van Schalkwijk made a fine dash, but was tackled, and though a pass to Clark looked hopeful, the latter was not quite fast enough. The King's men gradually forced us back, and Wakely, in the centre, made some straight runs, as did Farr. At the scrum-base H. N. Knox played well. Then, with twenty minutes to go, Wade, the last to receive after good handling, dashed through our defence and gained a fine try. The position for goaling was easy, but Collis missed it. Just afterwards Wakeley cleared for Ahrens. A try looked certain, but Ahrens failed to hold the pass. From now to the end it may safely be said King's kept us hard at it defending, the final score being 1 try each. Spence was very safe indeed. Neither Fellowes-Smith nor Clark had much opportunity. Hops was very good, though, like other members of the team, hampered by rulings. Scholefield was at his very best, and Myburgh, Holloway and Popplewell were great triers.

Nothing must be said on the rulings of the referee in this match. He is the sole judge, and we have to abide by them as sportsmen, but the method and manner in which these rulings were dispensed filled one with irritation. About seven Guy's players were warned, and nearly every one scolded and shouted at. Never have I seen a team so humiliated, and all for no apparent reason. We are not angels, neither are we men ignorant of ordinary football behaviour. To draw a man's attention by kicking him is not the way referees should act. Yet this was done, and one was amazed and yet delighted that Guy's XV. showed so much restraint. Annoyed, irritated, and "riled" almost beyond bearing, they held themselves in, and are to be congratulated very heartily.

It should be added that during the latter part of the game Fellowes-Smith played centre, Van Schalkwijk going fly half and Preen on the right wing.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, G. Clark; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, W. H. Myburgh, J. W. Schabort, E. W. Hutchinson, De Wet Vorster, J. Popplewell.

Guy's v. Roslyn Park.

ON Saturday, March 7th, at the Old Deer Park, Guy's met their old and friendly opponents, Rosslyn Park. In view of the cup tie to be replayed next Monday, we had to play an "A" side, and some regular members of that team could not turn out. In addition, Lewis strayed in some way, and did not appear till after half-time. We were seven in the pack till then, as Radford was on the wing. Steyn turned out, full of "beans" but short of wind.

Right well did our representatives play, and heartily did they go for their heavier opponents till about 15 minutes before the end of the match, when our defence crumpled up and the score rose with a jump. We looked very much like scoring first, but Ettles was forward

when he took a pass, and Steyn, following up hard, was robbed by a bounce in the wrong direction. The pack soon came hard back, and in a scramble Crombie-Stedman scored for them. Before half-time J. D. Visser equalised with quite a good try. Surely this was good going. However, on resuming, we had a try against us by Atkinson and had, although now having Radford in the pack, to go all out to score. A try came from Leslie, the result of good following up. Level again, this was indeed good. Just after this, though, Foljames, running very hard, got past the centres and forced himself over the lines. This try was converted—11 to 6. This was not so good, and just afterwards the same player went over again. No conversion this time—14 to 6. Right gallantly the pack went about their task, and Western, who played an uncommonly good game (as did his partner Jones), got the ball to Steyn, who ran from his own half and gained a fine try—14 to 9. Two fruitless penalties to us, and then Field got right away, and just after Gray, on the other wing, scored as well. Both were goaled—and that is the end: 24 to 9. A good game, but that last 10 minutes was too much for us. Boyle, at full back, was excellent; the tackling of the threequarters very bad; Ive must not always punt ahead just because he faces a man; Western and Jones were excellent in attack and defence; the forwards were very good indeed, the hooking, especially against such a heavy pack, being splendid. Russell, Visser and Ettles were the best of a hard-working pack.

Guy's Team.—V. G. Boyle; M. Ive, H. W. Leslie, C. L. Steyn, —. Lewis; —. Western, W. D. G. Jones; D. C. M. Ettles, H. W. Russell, J. D. Visser, J. C. V. Tregarthen, D. Timpson, C. Brittain, C. Kurtz, and J. Radford.

It was rather a pity more Guy's men did not turn up to cheer on our second string. They deserved all the encouragement they could have. One splendid Guy's man was there—a Guy's man of 50 years ago, Dr. W. G. Nash. I think Dr. Nash qualified in 1874. He was a forward in the 2nd XV. of those days, but played four times for our 1st XV. Right glad was this 2nd XV. forward, of half a century ago, to see the forwards of to-day's 2nd XV. He thinks that Guy's need have no fear of the future with this bunch of reserves to draw from.

Guy's v. King's.

Replayed Semi-Final Cup Tie.

THIS match was duly played at Richmond on Monday, March 9th, and ended in a win for Guy's by 1 goal 3 tries (14 points) to 1 try (3 points). It was a very cold dry day, with a strong wind blowing towards the entrance gates. Guy's had to face this wind for the first half. A new and very lively ball was used. Preen and Schabort, injured in last Thursday's match, could not play, and King's were heavy losers by Knox's absence, this powerful scrum-half having been unfortunately taken ill on Saturday, and report states subsequently operated on for appendicitis.

Almost from the commencement King's got us pressed heavily back on the defensive. The first real relief came from Graham-Davies, who cleared to half way. Long kicks soon drove us back. Luckily, the forwards were doing much better than in Thursday's game, breaking up more quickly, and aiding the defence. The tackling was also much more thorough, and Steyn, playing in the centre, was not lacking in helping Spence, who fielded with splendid accuracy. Scholefield got a good dribble, and we got to the King's "25." Durr, doing little in the tight, was splendid in the loose. The King's full back, under pressure, got in a splendid kick and then suddenly, in some loose play, the game having crossed to the other side of the field, Collis scrambled over for the first score for King's. No conversion followed. Soon we got a footing on King's "25" yard-line. The ball came our way, and Graham-Davies got Fellowes-Smith away at top speed. Fellowes-Smith took the pass cleverly, but a yard or so out he was partially tackled. However, he managed to plant the ball behind the line. Durr's kick against the wind was good, but short. A great dribble by Durr ended the first half.

Being "as you were," and having the wind in our favour, Guy's set about their task splendidly, and almost at once Fellowes-Smith dashed off again. Popplewell, who covered miles during the afternoon and played well and untiringly, got over the line, but lost the ball, and then, after about ten minutes, Durr came away and, amidst tremendous cheers, placed the ball behind the goal for Graham-Davies to convert. Shortly after Graham-Davies dropped for goal, narrowly missing. Then Durr actually crossed the line again, but was offside. Passing

via Hops, Van Schalkwijk, Steyn and Graham-Davies got Fellowes-Smith clean away, but the last pass was forward. Our team were now going well, and are all to be congratulated. The passing was all to the right, Clark getting no chance. Hops was rather subterranean in his throwing out, Van Schalkwijk having to capture from the bounce, and this was difficult with a light ball and a high wind; however, a good round of handling and a most determined run by Fellowes-Smith saw the famous wing-man dash over the line. Wide as was the angle, Durr only just missed. Now King's got over our half-way line and, magnificently as had MacMyn played all through, he had the hardest luck in failing to score, for, getting clear, the ball rolled to touch. From this Scholefield dribbled out of danger. We defended now for a bit, and then Guy's got going again, passing this time to the left. Clark found Spence outside him, but the full back did not get over with it. Following this, the ball came right along the line again. Cleverly Graham-Davies shot past his man and unselfishly gave Fellowes-Smith the ball. He made no mistake, tore past Kerr, left Ahrens and ran right round. Graham-Davies missed the easiest of kicks, and we, who had been heavily pressed all the first half, were left by the margin mentioned above winners of a good game, most sportingly played by the King's XV. and refereed in an ideal spirit by Mr. T. H. Vile. Spence, for his steady and confident display, deserves all praise. Except for the not unnatural difficulty in fielding the "airy" ball, all the threequarters were good. Hops' defence was splendid. Van Schalkwijk filled a difficult position skilfully and well. Every forward can be mentioned for good work; one saw them all doing their particular job thoroughly. Scholefield was always on the ball, as was Popplewell, and both helped

GUY'S v. KING'S.

A Breakup of the Scrum on the Touch Line.

the defence untiringly. Durr as a light skirmisher was excellent. Myburgh and Holloway were solid, hard scrummagers. De Wet Vorster was quite good and thunderingly efficient in the tackle, and Hutchinson was prominent in the line-out particularly, Visser being by no means the least of a good pack.

Now for our old friends of London on March 18th. May it be a fine day, a gay crowd, and a good game; and may the Can come home with the Cup, or rather the Cup with the Can. If fortune is with us and the Cup does return with us, it will be for the 21st time.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith; H. Graham-Davies, C. L. Steyn, G. Clark; W. Hops, J. G. Van Schalkwijk; J. Durr, B. G. Scholefield; N. M. Holloway; W. H. Myburgh; E. W. Hutchinson, De Wet Vorster, J. Popplewell, J. D. Visser.

The Inter-Hospital Boxing Competitions.

Tuesday, March 10th, 1925.

SOMETIMES I think that we underrate the physicians and surgeons of the eighteenth century. Their methods were few but they were practical. They knew better than their successors the value of bleeding their patients and that this simple and efficacious treatment has now lost favour as a routine measure seems to me a pity. I must say that it agrees with me overwell and I find a little blood-letting after dinner improves my digestion in a very marked manner,—provided of course that the blood that is let belongs to someone else. That is why I approve so heartily of the Inter-Hospital Boxing Competitions. Nor am I alone in this feeling, for my companion last Tuesday had similar feelings of well-being. As he remarked, while applauding a particularly fierce encounter, "You know this sort of thing keeps you fit!" It was a wonderful thought, that all those men, who filled the National Sporting Club with smoke and applause, were keeping fit, and, I could not help feeling that some of them ought to attend more regularly. I have been asked to try to pass on this feeling of fitness to those of you, who were unable to be present—a sort of correspondence health course—but I should like to acknowledge the great help I have received from the gentlemen, who sat behind me, for the more technical expressions in this account.

A number of the more important spectators arrived late, as is the mode, but all the Ladies were there in good time, determined, in their manly way, to miss nothing. The entertainment opened with the first round of the "feathers," light, airy people, who floated in at nine stone and less. Darke (Bart.'s) knocking out Bouloux (U.C.H.) in the first round and Romaine (London) doing a similar service for Smith (St. George's) in the third round, the evening could not have opened more auspiciously and the clientele were all sitting up and taking notice when J. D. S. Thomas entered the ring against Jones of St. Thomas's. Thomas boxed in his usual engaging style, his left engaging with his opponent's jaw with beautiful regularity. Jones, as I was informed by the gentleman behind me, was wild, but he seemed to have every reason to be so. Even the G.B.M. (gentleman behind me) himself would, I imagine, have been a little riled at affording so many points at the expense of his own. There was never any doubt as to the issue, and Thomas, upholding at once the Hospital motto and the dignity of the Profession, left the ring with the parting in his hair unruffled.

A victory on points by Levy-Simpson (London) over Shelly (St. Thomas's) in the "Welters" next preceded the first appearance of Holloway, who set about Dewhurst (U.C.H.) in a very determined manner. The first round, to the uninitiated, seemed to be fairly even, both men doing as much damage as possible in the time allowed them, but the second round undoubtedly went to Alf. Hewitt, who put in a vast amount of work in facial expression, and if only he could have got at Dewhurst, there would have been a very regrettable scene. The rules fortunately prevented any such happening, and Holloway, finding that this was a one-man job, went at it with unmixed feelings of pleasure. Getting his opponent into a corner, he was putting in some good two-handed work, when shouts from the spectators caused him to stop and look round. Dewhurst thereupon ordered him in a very audible voice to continue, for which short but plucky speech we award him full marks.

After a short interlude, during which Bantam Kendrick (St. Thomas's) knocked out Bantam Rossall (Bart.'s) in the second round, another of our heroes appeared in J. G. S.

Thomas, who was quickly floored in the first round by Scott, of Bart.'s. In spite of this unfortunate little accident, Thomas led on points at the end of the round, Scott being, in the technical phrase of the G.B.M., "done like a dinner." Any dinner that was as done as Scott at the end of the second round, would have been refused admission to any dining-room, save perhaps that of the College, and in the third round the referee intervened and awarded the fight to Thomas. This let in Gain (St. Thomas's), who awarded McCarthy (London) as many blows as he could possibly want, but, like so many valiant people on this night of nights, McCarthy came up smiling for the third round and fought hard till the gong (that is, till the end of the round).

Now came the middle-weights, led by the terrible Brink, of London. Last year, Brink won two fights in an aggregate time of less than a minute and a half, but this March it was a very different story. It took him nearly a whole round to reduce the U.C.H. champion Ince, while as for Melly (Bart.'s), who defeated Pim (St. Thomas's) on points—but you shall read about that later.

The semi-finals of the Feathers produced two stirring struggles. In the first one, Dark (Bart.'s) seemed to be getting the worst of matters from Beck (Middlesex), until a lucky, loose one (G.B.M.) put the Middlesex man groggy (G.B.M.), and only a timely bell saved him. In the second round Beck was again down, but rose, staggering and bewildered, reducing the clientele to the same condition a few seconds later, by knocking out Dark for good. Both bodies were then carried to their corners amid rounds of applause.

The second fight was between J. D. S. Thomas and Romaine, who looked, but possibly could not have been, a much heavier feather. Romaine tried hard, but received so many straight lefts, counted painstakingly and audibly by the G.B.M., that he slowly but surely began to curl, and the third round finished with Thomas giving an exhibition of foot-work before a defeated man, whom the referee refused to declare beaten.

In the Welter-weights, Marcuse (Bart.'s) knocked out Bowles (U.C.H.) in the second round, and Levy-Simpson (London) defeated Pearce (Middlesex) on points. With regard to this latter fight, I must mention the footwork of Pearce, who, to my mind, has invented a highly ingenious new step for modern dancers. It could be called the "ostrich stamp" (except in the presence of ostrich farmers), and consists of a leaping, rocking motion of the body, the feet being brought down sharply, one after the other, as the dancer again reaches the floor. The step is Pearce's own invention, and he exploited it with considerable success.

A ten-minutes' interval of generous length was now conceded by the managing director, during which coffee was served in the lounge. Taking the coffee is vigorously enforced for those who undergo the Covent Garden cure, and a strong-looking man turned many a one away from the door marked "Committee."

After the interval came the finals, through which I shall hurry, as I am as tired of writing this as you can possibly be of reading it. Also the G.B.M., having somehow evaded the strong-looking man, returned to his seat no longer able to help with well-judged criticisms, and confined himself to shouts of "do for him" and "finish him off," which encouragement he showered on all combatants in the most open-minded and praiseworthy fashion.

In the final of the Fly-weights, Plum (St. Thomas's) knocked out Edward (Bart.'s) in the first round. It was the only contest at this weight, flies being scarce in our hospitals just now.

In the Bantams Kendrick (St. Thomas's) defeated Eason (London) on points, although the latter was on the ground at the end of the third round. The winner boxed in a very workmanlike style, but Eason affected long sleeves, and trousers almost of the new Oxford pattern. In the ring they looked comely, but uncomfortable.

J. G. S. Thomas made his final appearance in the Light-weight final against Gavin (St. Thomas's), to whom he gave away both length of reach and weight. In the first round he was knocked down, as he was in the second, but on each occasion he was quickly up again, though he seemed to be a good deal shaken. The third round was the best of the entire evening. Thomas led all through, battering his opponent with straight lefts and hooks and many other strokes and, though he received a good many in exchange, he certainly won the round. Had he won the fight? The G.B.M. said he would have done if only he'd finished him off, but he hadn't, and the judges disagreed. The Referee gave his decision in favour of Gavin, who thus won the only fight of the evening of which the decision was at all in doubt.

In the Light-heavies, Holloway defeated Colenso-Jones (Bart.'s) after three hard rounds, but he was always the better of the two, and it speaks well of Colenso-Jones that he refused to be knocked out.

In the Middle-weight final Brink (London) surprised everybody by taking two and a half rounds to knock out Mellie (Bart.'s). In the first round the points must have been about even, but after that Mellie was gradually battered out of existence, and showed great pluck and cleverness in weathering the storm until the final round.

In the Featherweight final, J. D. S. Thomas had his easiest fight of the three, partly perhaps on account of the heavy punishment Beck had received in his second fight. Actually it was all over in the first round, and Beck, though he made several gallant attempts to continue the fight, could do little more than cover his face with his gloves and stagger.

The welter-weights afforded a victory for Marcuse (Bart.'s) over Levy-Simpson (London) and then came the last fight of the evening, the final of the Heavies. M. Lipshitz, our champion, was every inch a heavy, and sallied our gallantly to win two points for his Hospital. He was game and tried hard, but Colenso-Jones (Bart.'s) was too clever for him. At the start of the second round he was sadly short of breath, but he was soon after relieved of all further need of it.

Trouble may come of this bad account of the fights, but I plead ignorance of the art of boxing, and, the base treachery of the G.B.M., I feel sure there were short jolts and upper cuts and breech deliveries in plenty, but I only know the straight-left, never having advanced further than that in my fistic studies. As for the complexity of scoring, I have been unable to find any who could unravel its mysteries for me. The programme stated the points to be four for a win and two for a runner-up, and those are the ones I append. For an account of the extra points see the sporting contemporaries.

Results of Competitions.

Fly-Weights.—D. Plum (St. Thomas's).
Bantam-Weights.—G. W. Kendrick (Thomas's)
Feather-Weights.—J. D. S. Thomas (Guy's).
Light-Weights.—A. Gavin (St. Thomas's).
Welter-Weights.—T. M. Marcuse (Bart.'s).
Middle-Weights.—V. H. Brink (London).
Light-Heavy-Weights—N. M. Holloway(Guy's)
Heavy-Weights.—G. L. Colenso-Jones (Bart.'s)

		Points.
1.	Bart.'s	14
2.	St. Thomas's	12
	Guy's	12
4.	London	8
5.	Middlesex	2

Guy's Hospital Sailing Club.

OUR last meeting was held on February 19th, when Mr. James Sherran, our Vice-Commodore, very kindly entertained the Club at his house. On this occasion Mr. Sherran gave a learned and very interesting discourse on the Evolution of Hull Design and Sail Plan in Sailing Vessels during the nineteenth century. He traced the development of the sailing vessel to meet the growing demands of Colonial trade, lending interest and colour to the subject by stories from his own personal experience in a wind-jammer.

He pointed out that in the earlier part of last century the mail and passenger services to China and the Colonies had been the main consideration, cargo space not being very much in demand. Speed, therefore, had been the chief aim of builders, who evolved sharp cut-away bows, fine lines and counter sterns almost like modern yachts. The quest for speed also was responsible for the double top-sails and sky-sails which came into being about the middle of last century. Those engaged in the India and China tea-trade had all been British-built ships, and the best-known of these had probably been the *Ariel, Tarping, Seneca,* and *Fiery Cross.* They had been very fast, and some indication of their speed could be obtained from the famous race between these four vessels from Foochow to the Thames in 1866. The *Ariel,* carrying sky-sails, had shot ahead in the light winds, but had buried her nose and lost ground in heavier weather, and finally had won the race in 99 days, the others having been but a few hours behind.

Coming to the Australian and New Zealand services, it had been found that heavier seas in stormier latitudes demanded larger boats. This had led Messrs. Donald Mackay, of Boston, U.S.A., to build the *Lightning, James Baines, Champion of the Seas,* and *Donald Mackay* for the English Black Ball Line. These were magnificent vessels of about 300 tons, measuring about 110 feet on the water line by 26 feet beam. They were of deep draught, fast, stiff, and being of wood, had been cool

and spacious and had responded to the sea with a delightful give and spring, as only a wooden ship could. Things of beauty and grace with abundant crews to manage their great spread of canvas, they had probably been the finest vessels that had ever sailed the seas. And these had been the ships in which the early colonists had set out, with horses, dogs and cattle, to seek their fortunes in the Southern Seas. The *Cutty Sark*, whose name was known to every school boy, was a surviving representative of that type of vessel.

Then with the increase of trade and growing competition in freights, speed had become less important, and cargo capacity had come to be the principal factor in the design of ships. Thus the fine graceful lines of the older boats had given place to bluff bows and square sterns, and sailing ships had become mere floating boxes. But it had not been only below decks that the ghastly effect of commerce had been felt. The rise of wages and keen freight competition had demanded sweeping reduction of crew, and with that had gone much of the beauty and elegance of sail plan. Economy of labour had been the slogan, sails had had to be simplified and reduced in number, and appearance had gone by the board. Monstrosities of every sort had begun to find their way on to the water, the American seven-bunger being, he thought, quite the most ugly thing that had ever floated.

But by the end of the nineteenth century the steam engine and propeller had sounded the death of canvas in the commercial highways of the world, and the decline of sailing vessels during the last twenty years had been rapid and almost complete. And to-day the eye had come almost to approve the narrow beam and the hard lines of iron hulls, and the steamship had become so established that the seas were no longer scanned for the sight of a sail, but of a smoking funnel. And though the sailing ships of the nineteenth century had probably been the finest and most beautiful craft that had ever crossed the seas, there was something in the stately grace of a modern steamer which was at any rate better than the hideous tubs and monstrosities which had immediately preceded it.

. . . . .

For the next meeting the Commodore, Mr. Claud Worth, has kindly invited the Club to his house, 34, Harley Street, at 8 p.m., on the 25th March, when he will talk to us about "Seamanship in Small Boats." At this meeting also the Rota for the use of the Club dinghies by the various hospitals will be discussed.

Guy's Cross Country Section.

Inter-Collegiate Race.

GUY's entered a team for the London University Inter-Collegiate Race for points towards the University Sports in May. The race took place at West Wickham, over the United Hospitals course, on Wednesday, March 4th, the distance being 7½ miles. In a field of 40, the Hospital did well to finish 4 men in the first 12, and we ran University College hard for first place, being only defeated by a margin of 5 points.

*1. B. C. V. Oddie (E.L.C.), 45mins. 34secs.
2. J. B. Cochrane (U.C.), 45mins. 44secs.
3. G. F. H. McCormick (U.C.), 46mins. 25secs.
4. F. B. Mallinson (King's), 46mins. 33secs.
*5. J. G. Stubbs (E.L.C.), 47mins. 10secs.
6. M. E. M. Jago (Guy's), 47mins. 36secs.
7. R. G. Lissel (L.D.T.C.), 48mins. 28secs.
8. J. H. Chitty (Guy's), 48mins. 37secs.
9. G. W. Rake (Guy's), 48mins. 56secs.
10. E. R. Andrews (U.C.), 49mins. 4secs.
11. A. Byles (King's), 49mins. 22secs.
12. L. K. Wills (Guy's), 49mins. 27secs.
13. J. Brace (L.S.E.), 49mins. 28secs.
14. J. Packman (U.C.), 49mins. 34secs.
15. A. P. Hughes (L.S.E.), 49mins. 44secs.
16. ——— (King's).
17. W. Scott (U.C.).
18. G. R. S. Stewart (Guy's).
19. ——— (Battersea Polytechnic).
20. ——— (U.C.).
21. T. M. Calhaem (Guy's).

*Individual competitors.

1. U.C.—1, 2, 8, 12 and 15=38 points.
2. Guy's.—4, 6, 7, 10 and 16=43 points.
3. King's.—3, 9, 14, 20 and 21=67 points.
4. L.S.E.—11, 13, 25, 31 and 32=112 points.
5. L.D.T.C.—5, 28, 30, 33 and 37=133 points.
6. Batt. Poly.—17, 29, 34, 35 and 38=153 points.

University College count 5 points, Guy's count 3 points, and King's 1 point towards the University of London sports.

Guy's Hospital Rowing Club.

Half-Blues.

The following were awarded Half-Blues for 1924:—

E. C. Huddy, W. S. Grove, R. F. Prichard, W. H. Miller.

Hospital Information, etc.

Epsom College.

Election of Foundation Scholars, June, 1925.

WE very earnestly solicit interest and support on behalf of Guy Anthony Matthews, aged 10, who has been approved as a candidate for a Foundation Scholarship by the Council. His mother, the wife of Lieut.-Colonel J. Matthews, D.S.O., R.A.M.C., is entirely without private means, and is unable to educate her son, unless he be awarded one of these scholarships. The family's case is a very hard one, and we whole-heartedly commend it to those of our readers who are interested and have influence in the election of the Foundation Scholars.

Pass List.

Society of Apothecaries of London.

February, 1925.

Surgery.

J. L. Hopkins. C. C. Po.

Medicine.

C. C. Po. P. B. Skeels.

Midwifery.

C. C. Po.

Change of Address.

J. K. Milward, Union Buildings, Hong Kong.

Papers by Guy's Men.

C. P. Symonds, F.R.C.S., A case of Meningiti following Lumbar Puncture, Irrigation, Recovery Illust. *Lancet*, 1925, i., p. 434.

T. Izod Bennett, M.D. and another, The Oral Administration of Large Quantities of Glucose, and it Therapeutic Uses. *Lancet*, 1925, i., 429.

S. P. Jacobson, M.R.C.S., L.R.C.P., Spastatic Paraplegia due to Lead Poisoning. *Clinical Journal*, liv., 1925, 94.

Specialities.

MEDICAL OFFICERS OF HEALTH VISIT THE OXO FACTORY.

A NUMBER of Medical Officers of Health of London Boroughs recently spent an afternoon at the Oxo Factory. The processes of manufacture of the Oxo products were viewed and explained, and during the visit a demonstration of the way in which the Company's "Oxoid" Gland preparations are physiologically standardised was given. A cinema film of Life on the Oxo Cattle Farms was also shown.

At the close of the visit Dr. D. L. Thomas, Medical Officer of Health for the Borough of Stepney, expressed the thanks of those present to Oxo Limited for an interesting afternoon.

Speaking as a Medical Officer of Health on behalf of himself and his colleagues, he stated he was gratified and impressed with the high standard of hygienic conditions existing in the factory. It appeared that every precaution was taken to ensure the maintenance of the highest standard of quality as regards Oxo and the other food products manufactured by the Company, and at the same time it was clear that no trouble was spared in looking after the comfort and happiness of the workers producing these products.

We understand that further visits are being arranged, and any of our readers desirous of availing themselves of these opportunities should communicate with Oxo Limited, Thames House, London, E.C.4.

X-rays.

FACTORS controlling the production of good dental negatives include Positioning, Exposure, Technique and Development.

Putting on one side development, which after all is a matter for the individual, we are left with correct positioning and exposure technique.

The Raylim X-Ray Unit, being designed especially for all phases of Oral Work, makes special provision for correct positioning. The Tube positions indicated are not only smoothly and instantaneously acquired, but if necessary may be reproduced at any future time, enabling work to be checked and verified.

Exposure Technique is also taken account of, and the accessible controls and automatic time clock contribute to the almost indispensable standardisation of this class of work.—X-Rays Limited, 11, Torrington Place, Gower Street, W.C.1. Telephone: Museum 8121. Telegrams: Exraylim, Westcent, London.

"Whitbread's Stout."

THE name of Messrs. Whitbread & Co., is a guarantee for excellence and purity in ales and stout, etc.

In order to make "assurance doubly sure" they have submitted samples of their stout to a thorough analytical test by the Clinical Research Association, whose Laboratory Report reads:—"The sample yields the following results on Analysis:—

Alcohol (by volume)	4.36%
Extract	7.64%
Proteins (Nx6.25)	0.49%
Reducing Sugarsas Maltose ...	3.68%
Dextrin	2.88%
Acidity (fixed) as Lactic Acid ...	0.04%
Acidity (volatile) as Acetis Acid	0.27%
Mineral matter	0.282%
Including Phosphoric acid ...	0.065%

As judged by the above figures this appears to be a well brewed stout." Doctors may therefore recommend it with confidence to convalescent patients as a means of speedily restoring their strength, whilst those in health may take it as a daily beverage which assists them to retain vigour and ward off influenza and other complaints which so easily attack the debilitated and anæmic.

Marriage.

PARKINSON—GOODCHILD.—On Feb. 26th, 1925, at St. Andrew's Church, Stoke Newington, by the Rev. G. Golding Bird, D.D., assisted by Rev. W. M. Shepherd, M.A., Norman Parkinson, L.D.S., R.C.S.Eng., youngest son of the late Mr. W. Coulson Parkinson and Mrs. Parkinson, of 28, Carleton Road, Tufnell Park, to Gladys May, elder daughter of Mr. and Mrs. G. W. Goodchild, of 448, Seven Sisters Road, N.4.

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

A FEW days ago one of our most eminent physicians was examining a patient of five years of age and, that the examination should not become tedious and in order to maintain a flow of light conversation, said, "What do you want to be when you grow up; a soldier?" to which the small boy immediately replied, "No, a priest." That was a very surprising admission from so young a child and everyone, who had expected him to wish to be an engine-driver or a fireman, laughed at him heartily, as is the way of adults with children. But the reply opened up to us a new line of investigation and we forthwith set out to discover what our friends would like to be, when they grew up. It was not so much what profession they would like to adorn, for after years of hard study the medical student almost invariably longs for the day when he can let people call him "doctor" and still be unashamed, but by what characteristic they would best like to be remembered. Some wished to be considered honest, others charitable, and yet others honourable, clever, good, gay, unaffected, polished, irrisistible or incorrigible, according to their various dispositions. Not a single one of whatever nationality, religion or capacity wished to be considered respectable, and with this great, negative virtue so deeply ingrained in the young men of to-day, we may face the future with stout hearts.

Respectability is a terrible disorder. It works insidiously, undermining the generous and sympathetic natures of men and women until they become so cachectic that they fall easy victims to the allied diseases of self-righteousness and intolerance. Nature has no use for respectability. She and it are as incompatible as banks of primroses and bowler hats, as the wild seas of Devon and the sun-baskers of Biarritz. It may well be said of it, as was said of a certain kind of song, that it is fit only to "double you up and drag you down and damn your soul alive." From our very earliest days, we have had an almost morbid dread of becoming respectable, a dread, which we have always associated with a distressing impression, gained in our childhood.

We were walking down a small suburban road on a baking Sunday afternoon in August. Somewhere, we knew, streams were still flowing lazily through shady woods while even the shadeless meadows were fanned by cool breezes, but here the sun's unimpeded rays rebounded from the hot, asphalt road and, surmounting the low stone walls of the cottage gardens, burned the red-bricked rows with a ferocity that made them dance and quiver. No shade protected them here and the few, parched flowers in the small squares of gardens drooped wearily beneath the blazing, cloudless sky. In some of the doorways the cottagers sat in their shirt sleeves, grateful for any small breath of air, however hot, that found its way in at their open doors; but one cottage stands out in our memory as distinct from the others.

It's windows and door were firmly closed and through the half-parted curtains of the living room we caught a vista of aspidistras, wax fruit, crowded furniture and Goss china ornaments. All this we could have forgotten but from that oven of a living room came the sound of a hymn, played labouringly yet imperfectly on an ancient piano, whose notes oft stuck in its parched throat or twanged with the vibration of a broken wire. One shrill female voice and several gasping smaller ones struggled with the words—"Send showers of blessings"—and the despair and hopelessness of those voices was beyond belief. We could not see those living sacrifices, as they sat round that airless room, terrified to do anything childlike, lest they break the Sabbath, but our heart went out to them. And as in imagination we stripped them of their Sunday clothes and took them, dishevelled but happy, to play like good Christians in the green countryside, our elderly companion brought us back to suburbia with the words, "Those are the Smiths in there; very respectable people."

Respectability is like that; it is stuffy. It shuts itself up, apart from the healthy society of the free-hearted and amiable. It does nothing on impulse, lest it prove not to be respectable, but performs even the most obvious acts of good nature after much calculation. Its devotees are starch-fronted and sour-visaged and carry out the letter of the law, but the observance of the spirit is left to the others, those whose life, from its generosity and its variety of interests, is coloured with all the hues of the rainbow, while the life of the respectable is colourless and drab.

Despite their great self-esteem, the devotees of respectability are not respected. They are shunned, despised, ignored or tolerated by the coloured members of humanity, according to circumstances, but they are neither respected nor loved. It is easy to love a good man, it is sometimes almost as easy to love a thoroughgoing rascal, but to love a respectable man is beyond the realms of possibility. How often do we read on a commemorative tablet that it has been erected to the memory of somebody as an instance of the love and esteem in which he was held by his friends, by whom he was generally respected? Time and time again. Yet we never read that the deceased was held by his friends to be highly respectable. What becomes of the respectable after death is a mystery. Perhaps their acquaintances of the coloured life, out of their charity and kindness of heart, forget their besetting sin and engrave their tomb-stones with revered fictions; or perhaps they themselves make death-bed repentances and die more gracefully than they have lived. Whatever becomes of them after death, in life they are always with us, a fact that we acknowledge yet deplore.

And what has all this to do with Guy's Hospital, and how does it affect us? It affects us very nearly, for we have come perilously close to being termed respectable and that in the columns of a daily newspaper which we have always respected. It was in the account of the Cup Final match in the *Times* that the following sentence appeared:—

"There was applause for every piece of good play, but except for the colours the match might have been one between two respectable clubs."

That saving clause, "except for the colours," has taken the sting out of the accusation. May we always have the sanity to keep those colours flying, lest, overcome by the insidious growth of respectability, we move with the times and become drab and colourless.

▭

After a short absence of one year, the Inter-Hospital "Rugger" Cup has found its way back to the Borough, where it is so very much at home. This splendid finish to a very successful season is largely due to the untiring energy and enthusiasm of the captain, J. G. Van Schalkwijk, to whom we offer our heartiest congratulations. With very many other well-known people, he revisited the Richmond Athletic Ground last Wednesday to witness the annual struggle between the Junior Staff and the Nomads. This match, which was fought out with great noise and determination by both sides, resulted in a win for the Junior Staff by twelve points to ten, and a full, illustrated account of it will, we hope, be produced in our next number.

▭

Said a Nomad, resenting some chaff,
"Though the men on the touchline may laugh,
Yet it injures our pride
When our regular side
Cannot conquer the JUNIOR Staff."

Obituary.

Thomas Morley,

School Janitor, 1880—1916.

MANY old Guy's men of a past generation will learn with regret of the death of Thomas Morley, the old School Janitor, on Sunday, March 15th, at the age of 72. Last summer he was an In-Patient at Guy's under Dr. Fawcett, and many of his old friends were grieved to see how much he had aged since last they saw him. Morley was the Janitor of the School from September, 1880, until March, 1916, when he retired with a pension. He was never known to have to ask a student for his name a second time, and he was quite one of the characters of the Institution. One of the most familiar sights was Morley with his pencil and sheet of paper taking the names of the students at the various lectures. No man of greater integrity and uprightness than Morley ever lived. It was not of the slightest use for anyone to try and convince him that he had made a mistake in recording the number of lectures attended. He could never be persuaded of the possibility of a doubt so far as the correctness of his Lecture Register was concerned. He was of rather a retiring disposition and rather introspective, but no one has ever been known to say an unkind word of this very loyal, painstaking Hospital servant, who served the Medical School for a period of 36 years.

He had the great misfortune, like many others, to lose his only son in the war, and a few years later he suffered the greatest loss of his life when his wife passed away. To the two daughters, who mourn the loss of a devoted father, our sympathy is extended.

George Frederick Pollard.

GEORGE Frederick Pollard, a student at Guy's Hospital in the early eighties, passed away rather suddenly at his home in Hanwell on January 20th. He was seventy years of age and had been failing in health for some time, having been retired from active medical practice for two years. He was much beloved by all classes and his death will be regretted by many, including those friends of his student days, to whom and to his hospital he was always so much attached.

To his widow we offer our deepest sympathy.

Guy's Hospital Chapel.

THE following arrangements have been made for Holy Week and Easter.

Holy Communion daily, 7 a.m.

Monday, April 6th—
Address by the Rev. E. S. Scroggs, M.A., Vicar of St. Mark, Enfield, 8.15 p.m.

Tuesday, April 7th—
Address by the Rev. W. J. Simmons, B.A., Chaplain to Westminster Hospital, 8.15 p.m.

Wednesday, April 8th—
Address by the Rev. Canon T. W. Pym, D.S.O., M.A., Chaplain to the King, 8.15 p.m.

Maundy Thursday, April 9th—
Preparation for Easter Communion, 9.15 p.m.

Good Friday, April 10th—
Matins and Address, 10.30 a.m.

Easter Day, April 12th—
Holy Communion, 6.15 a.m., 7 a.m., and 8.45 a.m.
Matins and Address, 11 a.m.

Papers by Guy's Men.

Arthur Bulleid, L.R.C.P., M.R.C.S., L.D.S. Eng. An Experimental Study of Leptothrix Buccalis.—*B.D.J.*, 1925, xlvi., p. 289.

John A. Ryle, M.B., F.R.C.P. Goulstonian Lectures on the Study of Gastric Function in Health and Disease. Lecture I.—*Lancet*, 1925, i., p. 583.

Arthur F. Hurst, M.D., F.R.C.P. A Case of Cerebral Abscess Complicating Empyema: Operation and Recovery.—*Ibid.* p. 605.

Change of Name.

Conrad Adolf Achner to Conrad Adolf Ackner.

Publications Received.

The St. Mary's Hospital Gazette, The Nursing Times, The British Medical Journal, The University College Magazine, The Isis, The Medical Review, The Chilean Review, The Burma Medical Times, The Indian Medical Record, The London Hospital Gazette, The Journal of the Architectural Association, The Clare Market Review, The University of Durham College of Medicine Gazette, The Bedford College Union Magazine, The Stethoscope, The Northerner, The Middlesex Hospital Journal.

Tuberculous Disease of Hip.

A Clinical Lecture delivered at Guy's Hospital on February 12th, 1925, by C. H. FAGGE.

GENTLEMEN,—I was speaking, last time, of the local evidences of tuberculous disease of the hip, and I will just review some of the more important.

It is always well to insist that in tuberculous disease the limitation of movement is a limitation of all the movements. There are many conditions in which a differential diagnosis has to be made in which limitation of movement occurs, in one or other direction, but not in all, as in tuberculous disease. In dealing with tuberculous disease of joints in the lower extremity, we always have to estimate the part which weight-bearing plays in increasing symptoms, as compared with what we find in the joints of the upper limb. In every case of tuberculous joint in the lower extremity, weight-bearing is one of the important causes of pain and tenderness from which these patients suffer. One often finds that students are disinclined to diagnose tuberculous disease of a joint because the patient apparently complains of no pain. One's correct conception of tuberculous disease should be, that it may vary in every possible degree, from a most acute and very painful to a sub-acute and comparatively painless disorder. Pain is certainly a point in favour of tuberculous disease, but I think one cannot exclude tuberculous disease because there is no apparent pain, or at least because pain is not a marked symptom. In the case of the hip joint, evidence of tenderness is of very little value. Deep pressure over the head of the femur will sometimes elicit tenderness, but this physical sign is not nearly of as much value in tuberculous disease of the hip as in other joints, such as the knee, nor, of course, is swelling at all apparent.

On examination of the hip the next thing to notice, is, often, flattening of the buttock and obliteration and lowering of the gluteal fold; there is a lowering of the gluteal fold on the affected side, largely the result of slight flexion and abduction of the limb. Similarly, if the limb is adducted and inverted, the gluteal fold is apparently raised. The fact that the gluteal fold is obliterated is, in part, due to atrophy. and here is to be noted a very important sign of tuberculous disease of a joint—atrophy of the adjacent muscles, which move that joint; an atrophy which is out of all proportion to what would be caused by disuse, and it is associated with a loss of irritability to the Faradic current. Occasional diminution of the reflexes suggests that there is a trophic lesion affecting the muscles, joints and bones, and that this is responsible for the atrophy of the limb, which is often extraordinarily marked.

It is customary now to describe three stages of hip-joint disease, but in none of them will the lesions exactly explain the position. I think one must learn the cut-and-dried positions belonging to the three particular stages. But when you have seen many cases you will soon realise that whereas most of the cases in the early stage have the limb abducted, adduction is not impossible. So one soon begins to feel that there is no one position in hip disease which is absolutely typical, though one must learn the ordinary position first, and the exception afterwards. The subdivision of the disease into stages does help one to visualise the conditions which underlie it.

The position adopted in the early stage of hip disease is one of flexion, abduction and rotation outwards, as you see in this figure. Here is another illustration of the early stage of hip disease; you see abduction of the right leg, and the pelvis is tilted so that the anterior superior spine on the right side is lower than that on the left, resulting in an apparent lengthening of the limb.

It is perhaps easy to explain the position of the first stage. It is the position unconsciously taken up by the affected limb; it is that which puts the muscles at rest, probably that in which the joint cavity has its greatest capacity. It is said that injection of the joint with fluid always produces this position. This stage is the stage in which treatment should always be undertaken: it is a stage in which, at the best, cure by resolution may result; at the worst, ankylosis in the best possible position. My next figure endeavours to explain apparent lengthening of the affected limb: with the thigh of the affected side abducted, the angle it forms with the transverse axis of the pelvis is greater than a right angle, so in order to walk comfortably with his lower limbs parallel the patient must raise the pelvis on

the sound side, and lower it on the affected side. This is the direct result of his right hip joint being fixed by muscular spasm in the position of abduction. And for the same reason flattening of the right groin, a lowering and flattening of the right gluteal fold, together with apparent lengthening in the first stage, are usually met with. If we view the same child from the side, we can estimate the amount of flexion. The amount of flexion in such cases is difficult to estimate, because it is always compensated by over-arching of the lumbar spine, which is called lordosis. By merely looking at the child standing up we cannot estimate the amount of flexion. One cannot look too often at this figure of the same child lying down flat with the sound hip fully flexed, because one still sees, unfortunately, generations of men who will neglect to adopt Thomas's test in order to estimate the amount of fixed flexion in the affected leg —by bending the sound leg on to the chest, so that the lumbar spine is absolutely flat and lordosis is eliminated.

The most common position in the second stage of hip disease is, that the affected limb is adducted, rotated inwards, and flexed. This figure demonstrates the adduction of the right or affected thigh by the involuntary crossing of the legs, when the anterior superior spines are in the same plane. And in the second figure, when the adducted limb is placed in the line of the body the pelvis is tilted upwards on the adducted side, and downwards on the other. The patient compensates the apparent shortening either by flexing the knee on the sound side, or he walks on the toes of the affected side. The causation of the deformity at this stage is very obscure: it is said that adductor spasm is produced, and that owing to this the affected limb is drawn inwards. But I think we cannot quite accept this as the sole causative factor, because the abductors are rotators outwards, and therefore there is no reason for rotation inwards, which usually occurs, and I do not see any real reason for spasm of the adductors any more than for spasm of other muscles round the affected joint. As we so often notice, when there is a condition entirely obscure, there are many explanations given, none of which are apparently adequate. And I must confess I can give you no good reason why, in this stage, which is the stage of destruction of the articular surface, with the disease spreading from the diaphysial side of the epiphysial line, to involve the articular surface of the cartilage, adduction, flexion and shortening of the affected limb is caused.

The third stage of hip disease is a stage of complete destruction of the joint, and there is, in this stage, still abduction and flexion, and there is real shortening. In the majority of cases a wandering acetabulum is produced, as seen in this diagram, and in some specimens I showed last time. There is a difference of opinion as to whether the condition should be regarded as a pathological dislocation of the hip, or whether it should be more accurately described as a wandering acetabulum, with erosion upward and backwards and enlargement of the acetabular cavity. It is, in all essentials, a pathological dislocation. But from a true dislocation without shortening of the neck and without gradual removal of the head it differs in this particular, that the two trochanters will be nearer the middle line than normal, whereas in true dislocation they should be further away. This gives some help in diagnosis from congenital dislocation of the hip, in which, as a rule, the great trochanter is prominent, and apparently further from the middle line than normal, though the neck of the femur is not of its normal length.

This is the stage in which gross deformity occurs. The amount of shortening will depend upon the extent to which the head in the acetabulum is moved upwards, and the amount of destruction of the head and neck of the femur. Sometimes flexion is very marked, but as a rule some of the flexion is due to spasm, and this part can be got rid of by weight extension. If the neck of the femur is fairly long and goes far back behind the acetabulum, the limb is often rotated inwards considerably, but of the three displacements, as Mr. Howse taught me as a Ward Clerk, adduction is by far the worst, and the most difficult to get rid of, because, once the limb is fixed in adduction the tremendous power of the adductors comes in, and it is difficult to overcome their pull.

In the first two stages, ordinary measurements, such as Nelaton's line and Bryant's longitudinal line, show there is no shortening. In the third stage the great trochanter is raised above Nelaton's line, and the longitudinal line of Bryant is shorter on the affected side.

Almost the first requirement "of the average candidate in a certain place" when asked for evidence of hip disease would be an X-ray.

But you will not get much out of an X-ray in the first stage, when you want it; the only evidence obtained by this means is in the last stage, when you do not need it. There is fuzziness of the outline of the synovial cavity in the joint generally in the early stage if there is effusion into the synovial membrane, but the value of the X-ray in tuberculous disease of the hip is negative, rather than positive, in that it excludes other things which have to be eliminated. It would seem that some day we must obtain a specific reaction of tuberculosis which shall be a reliable aid to diagnosis. There was a time when everybody who was suspected of tuberculosis had a Calmette's reaction, a von Pirquet's test, or tuberculin, and you know, as well as I do, about the real value of those methods of diagnosis. The diagnosis of tuberculous disease of the hip has to be made now as when I started learning surgery, on an estimation and judgment of the symptoms and physical signs. And you will see that these vary extraordinarily in their acuteness.

We begin at one end of the scale, and we may have difficulty with an acute suppurative arthritis, either pneumococcal, streptococcal, or staphylococcal, which occurs in infants and gives rise to a very acute condition of the joint may be simulated by an early tuberculous hip. In that condition you can only wait and see, I think. In another aspect of the disease a history of injury is prominent, and sometimes suggests a sprained hip, which is, after all, only a tentative diagnosis. A sprained hip may produce enough arthritis to justify you in regarding the case as a traumatic arthritis. There again, I think, one can have no guide in differentiating it from tuberculous disease of the hip, except the progress of the case, the absence of temperature, the absence of real illness, and the fact that within a short time it begins to improve. And, dealing with another traumatic condition, it is sometimes extraordinarily difficult to diagnose tuberculous disease of the hip from that condition which is called "slipped epiphysis." (I may be excused for drawing the three epiphyses of the upper end of the femur, and emphasising the fact that the neck is derived from the diaphysis.) In boys of 10 to 15 years of age it is possible to get the epiphysis of the head detached, and generally its relation to the neck is altered. The neck sinks, and, as some teach, the condition of coxa vara is produced: but coxa vara is not a disease, it is not even a pathological state; it is a deformity resulting from some other causes. One of the causes of coxa vara is this "slipping epiphysis." The interesting and curious thing about this partial traumatic detachment of the epiphysis of the head of the femur in a young boy is, that usually nothing is noticed of it at the time of its occurrence. The boy comes to a hospital because of a limp, because of some pain in the hip joint, perhaps, and says that at a certain time before, possibly six months previously, he had a fall and injured his hip. This may or may not be important, it may or may not be the actual causation of the alteration of the epiphysis. But it is seen, and the diagnosis is only completed, by X-ray examination.

A disease which is called "pseudo-coxalgia" has attracted much attention; it was described by various orthopædic surgeons—Perthes, Legg, Calvé. It is chiefly diagnosed by an X-ray, when segmentation or splitting up of the upper epiphysis of the femur is seen, and not much more. And these patients complain of pain. It usually occurs in small children of 2 to 5 years of age; so it affects a different age from that at which a "slipped epiphysis" is met with. It is decidedly difficult and important to diagnose this from tuberculous disease, but the treatment is on the same lines as tuberculous disease, namely, rest. I will not say more about it, because the diagnosis is made largely on the X-ray appearance, and it was only after radiography came in that this disease was separated, and, no doubt, years ago these cases were treated as tuberculous disease of the hip joint.

It is of more practical interest for us to realise that inflammation of the bursa which exists between the great trochanter and the gluteus maximus, and which therefore will produce rotation outwards of the femur as it enlarges and inflames, is difficult to diagnose from hip disease.

At the other end of the scale of acuteness and in older people one has to exclude the ordinary osteo-arthritis of the hip joint; and I may say here I think there is an incorrect tendency to regard tuberculous disease of bones and joints as a disease of infancy and of infancy only. Old people do get tuberculous disease of joints, though it is less common at that stage of life than in childhood. One reason for this is that there

are fewer old people than there are children. But when it does occur in them it usually causes very violent and rapid destruction of the joint. The result of the confusion of tuberculous disease of the hip with one of osteo-arthritis in an old person may be very bad. A diagnosis can be made, usually, by an estimation of symptoms, possibly by the occurrence of an abscess and by a skiagram.

Before finishing with this question of the diagnosis of hip disease from other conditions, I will at once dismiss "hysterical hip." I think hysterical hip is an extraordinarily bad diagnosis. I have never, as far as I know, diagnosed a hysterical joint without finding that I was wrong. I have not found the type of child we saw at the Evelina or at Out-Patients here simulate an hysterical joint. But it would be better to be taken in and regard a hysterical joint as tuberculous than to regard a really diseased joint as a functional condition.

One must never diagnose disease of the hip until one has examined the spine; one must never diagnose disease of the knee until one has examined the hip. From those remarks it is clear that the diagnosis between spinal disease and hip disease is difficult. Tuberculous disease affecting any portion of the spine between the mid-dorsal and the lower lumbar regions will produce, if not a psoas abscess, at least a psoasitis; and the effect of inflammation of the psoas is flexion and rotation outwards of the hip joint. I do not know whether you will agree with this; many years ago, when demonstrators in the dissecting room, my senior and I argued about the action of the psoas, and neither of us was willing to be convinced, and we remained where we were before on the matter. He held that the psoas rotates the hip joint inwards, and I held that it rotated it outwards; and my argument was largely based on the fact that if the psoas was inflamed, as in psoas abscess, there is always flexion, and rotation outwards.

It will serve at present if I remind you that hip disease may be confused with disease of the spine, both possibly producing psoas abscess.

The next point to be avoided is the assumption that a flexed, and perhaps painful, knee is diseased, whereas the disease is in the hip joint. Generations of text-books have taught us to believe that the reason why pain is referred to the knee when the hip joint is involved is because both have anatomically the same nerve supply. As regards the innervation of the knee from the obturator, I was told, not long ago, by one of my clerks that my explanation of the innervation of both joints by the obturator nerve would not hold because modern anatomists have pointed out that the obturator nerve gives no branch to the knee. So one of my pet youthful beliefs goes by the board. I do not mention this because I am argumentative on the point, but only because I think it is one example of the difficulty of explaining what is known as "referred pain." The subject of referred pain has a great attraction for me. There is no adequate explanation for it, so far as I know, and it seems to me to be a most insinuating and enticing subject.

The last thing to mention in differential diagnosis is inflamed inguinal glands. Inflamed inguinal glands will give flexion, pain, tenderness, and a certain amount of limitation of movement in the hip joint. And saying this reminds me that I have only roughly touched upon congenital dislocation. One does see congenital dislocation of the hip diagnosed as tuberculous disease; telescopic movement is characteristic of congenital dislocation with undue rather than limitation of movement.

In a case of congenital dislocation of the hip you will notice that between the two thighs of the child there is an interval, and that is particularly marked when the disease is bilateral.

The general lines of treatment of tuberculous disease of hip are in evidence almost daily in the lay press. One sees articles by eminent people on the value of heliotherapy, open air, sea-bathing, etc.

With regard to local treatment of tuberculous disease of the hip, the first essential is rest. Suppose we are dealing with tuberculous disease of the hip in the first stage: the flexion due to muscular spasm can be overcome by weight extension. This figure shows a child with an ordinary weight extension, the weight going over the end of the bed. The effect of the extension will overcome the flexion; and if the flexion is very marked, so that the thigh and leg cannot be brought to a straight line, the weight extension has to be arranged that it is in a line with the thigh. The secondary effect of the weight extension is to draw apart the articular surfaces, so that the child loses its muscular spasm and pain, and you will find that it then usually ceases to cry in the night.

The fact that it does not "start" and cry in the night is valuable evidence that the case is doing well.

Wrongly applied weight extension may act as leverage in hip disease. If there is considerable lordosis, and much flexion, extension in the same line with the bed, will cause the irritated contracted psoas to drag one articulated surface towards the other. To overcome this tendency the limb must be raised.

This is a Bryant's double splint. It is a very good splint for treating hip disease in young children. An ordinary extension over a pulley is put on the affected leg and held with the rubber pulley which you see. The sound leg and thigh are bandaged to a foot-piece on the other side of the splint, and a big towel goes round the body. It is very easy to turn the child over and to nurse him with it on, and it gives a considerable amount of absolute rest. It is not useful for a large patient, but it is the best thing for a small child.

This is the double Thomas' hip splint, exactly on similar lines to the single Thomas', which is the best splint for the ambulatory treatment of the disease.

If in the early stage more fixation of the child is desired, a double Thomas' is good, but it is not very comfortable for the child to lie in.

With regard to the prognosis of hip disease, you will find that two or three factors largely control it, and those factors are closely related to each other. It is perfectly clear, from what you have seen and what I have said, that you can do much for hip disease if you get it in the first stage. If you do not see the patient until there is adduction and shortening, possibly in the presence of an abscess, you can obviously not get as good a result as if you had seen the child when it began to limp. And I think the second factor is the social class in which it occurs. You will not see the poor child at as early a stage as you will see the child of a more careful mother. As in many diseases in children, the prognosis is exactly proportionate to the social class affected.

I shall conclude by saying a few words about the formation of abscesses. In the early stage of tuberculous disease the formation of an acute abscess, very often with the presence in the pus of staphylococci, or even streptococci, shows that destruction by the disease is very great and the resistance of the child is very small. In the later stages the formation of what we recognise as a cold abscess in any of the positions which I spoke of last time, does not seem to be of so bad a prognostic significance. In fact, I have often felt that the formation of a cold abscess is the last struggle of the tubercle bacilli, and when this abscess has been aspirated the disease subsides and the joint consolidates.

Before aspirating such tuberculous lesions there should be definite indications, such as the swelling getting larger, or tending to point. I may appear to be labouring a small point, but I do feel that the mere presence of pus in relation to a joint in the form of a cold abscess is not, by itself, a positive indication to evacuate it, perhaps because I particularly appreciate that it cannot be done without risks. I was discussing this point a few months ago with an old house surgeon who works at Alton, and he said that he did appreciate the point of view that I took, and he thought, too, that small collections of pus arising from tuberculous joints often disappeared with continued rest. I have not found that the injection of these abscesses with any material, such as camphor, thymol, and sulphuric ether, i.e., 2 parts camphor, 2 parts thymol, and 1 part sulphuric ether, was of any value, nor the injection of iodoform. The great thing about evacuation of these abscesses is to introduce a fairly large needle some distance from the surface of the abscess, so as to go through healthy tissue before entering the abscess, and then to do all you can to prevent subsequent staphylococcic invasion. Unfortunately, careful as you are, staphylococcic infection will occasionally occur. In my experience, staphylococcic infection of a tuberculous joint is generally the most potent factor in inducing a fatal ending.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

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Guy's Hospital Bicentenary Appeal.

THE Third List of Contributions to the Bicentenary Appeal is published below. This includes all donations above and including £25.

	£	s.	d.
Sums over £25 previously acknowledged	54,450	2	6
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the amount appears under that donor's name and therefore cannot appear also under the Collector's name who is responsible for that donation. Where collections are mentioned the individual donations have been small and the actual donor's names have not appeared.

At the end of the Appeal a full classified list will appear where all Collector's and their amounts will be inserted, and also a complete list of all individual donors where individual receipts have been given.

The Mayfair Dramatic Club.

The Mayfair Dramatic Club are giving three performances in aid of the Appeal at the Scala Theatre on April 2nd, 3rd and 4th next.

The success of their previous production of the "Maid of the Mill" will be remembered by all who witnessed it. It is earnestly hoped that as many as possible will buy tickets and support the Club (and so the Hospital) on this next occasion.

They are presenting "My Lady Molly," a comedy opera, and if it is anything like as good as their previous productions, all ticket holders can safely look forward to a really enjoyable evening.

Tickets may be obtained from the Secretary to the Treasurer, Guy's Hospital; from Miss Morel, 13, Clarendon Buildings, W.1, or from the Scala Theatre Box Office.

The Disguysed Minstrels at the Regent Theatre.

Special Performance.

We are glad to announce that owing to the remarkable successes of the Disguysed Minstrels, Miss Sybil Thorndike has most kindly lent the Regent Theatre, King's Cross, N.W. for a performance on Sunday evening, April 19th next.

Mr. Whitbread, Treasurer of Guy's Hospital, and Lord Revelstoke, Chairman of the Appeal Committee, have very kindly consented to be patrons.

It is a great occasion for an Amateur Troupe such as the Minstrels to appear in a big West End Theatre, but we know that the Minstrels will be equal to the occasion and that they will give us of their best.

Dr. D. J. P. O'Meara, the Musical Director and Producer of the Minstrels, has promised us some new numbers, and all arrangements are being made for a really fine performance.

On such an unique occasion we confidently trust that all members of Guy's—Staff, Students, Nurses, and old Guy's men—will give their fullest support.

The theatre is easy to get at, being opposite to St. Pancras and King's Cross Stations in the Euston Road, and the seats are at most moderate prices.

It is the one opportunity and possibly the last opportunity that all those, who have never seen the Minstrels, will have of enjoying their performance. They have raised nearly £700, and it is hoped that, if this performance is supported as well as it deserves, £1,000 may be raised in all, which would be a most creditable result for all their efforts.

Will every Guy's man and nurse, who possibly can, come and bring their friends?

All seats are reserved, and may be obtained from the Secretary to the Treasurer, Counting House, Guy's Hospital, or from the Regent Theatre, or from Mr. Robert Page, 11, Burleigh Street, W.C.2.

Prices vary from 10s. 6d. to 2s. 6d. Boxes may be obtained by special arrangement, and the performance commences at 8.30 p.m.

Leaflets and posters can be obtained from the Secretary to the Treasurer upon application, and the help of any who can sell seats will be greatly welcomed.

Come on Guy's, and support your own Troupe! The entire proceeds will go to the Appeal.

Annual Report of the Venereal Diseases Department, 1924.

I HAVE the honour to submit my report upon the new Department for Venereal Diseases, now known as the Out-Patient Annexe, during the year 1924.

The necessary alterations in building and equipment in general were far enough forward to permit opening the department for the evenings of July 28th and 30th. General arrangements were found to be satisfactory, and on July 31st the Department was opened at 9 a.m. as an all-day clinic, and into which all previously separate clinics were absorbed.

At the time of opening of the Department, the special examination room, the laboratory, and the demonstration theatre were incomplete as regards equipment.

The special examination room was completed and in use by the end of August, in October the laboratory was completely equipped and in use.

The construction of seats in the Demonstration Theatre has been delayed, but is now nearing completion.

The general structural arrangements of the Department have proved satisfactory; a few alterations in partitions, lighting and cupboard accommodation were found necessary in the first few months.

Advantages of the All-Day Clinic.

The Clinic has been open from 9 a.m. to 8 p.m. each week-day from July 31st to the end of the year.

These longer hours have been of great advantage to the patient, who now has a much freer choice of the hour of attendance than formerly, and is also enabled to attend twice a day, if necessary.

Patients can now be referred immediately to the clinic and attended to forthwith, in contradistinction to the former arrangements of the clinics, under which system patients, attending just after the clinics were closed, were obliged to wait two days.

This delay is of great importance in the treatment of the early stages of Venereal Disease and now does not occur except at night.

Furthermore, on account of the large increase in the duration of the working hours of the new clinic, it has become possible to undertake many more instrumental examinations and tests than formerly, with a resulting improvement in treatment.

Attendances.

The total number of attendances at the clinic from August 1st to December 31st, 1924, was 9,964, comprising 5,681 males and 4,283 women and children.

The total attendances for the same period of the previous year was 7,023.

The monthly attendances have shown a substantial increase from the date of opening to the end of the year, as may be seen from the following table :—

Month.	Men.	Women and Children.	Total.
August	961	613	1,574
September	1,039	921	1,960
October	1,012	924	1,936
November	1,296	851	2,147
December	1,373	974	2,347
	5,681	4,283	9,964

In December, 1924, five months after the opening of the new Clinic, the attendances were 2,347—almost exactly double the attendances for December of the previous year.

Distribution of Attendances.

Male Section.—The evenings from 5 p.m. to 8 p.m., as expected, have proved to be the most busy times, during which period about 50 per cent. to 60 per cent. of the days' total attendances take place.

About 25 per cent. to 30 per cent. of attendances are in the mornings, and the afternoon period has been the least busy, about 10 per cent .of attendances taking place during this period.

Female Section.—The distribution of attendances of women and children has been fairly even during the day.

New Cases.

The number of patients attending for the first time from August 1st to December 31st was 529.

Men	313
Women and Children	216
	529

	Men.	Women & Children.
Gonorrhœa	139	66
Syphilis	125	92
N.V.D.	49	58
	313	216

Defaulters.

During the period August 1st to December 31st follow-up letters have been sent to 180 patients who had ceased attending whilst still under treatment. Of this total 122 were sent to men and 58 to women.

Admissions into Hospital.

The number of beds available in hospital remain as formerly, viz.:—

Men—3 beds in Cornelius Ward.
Women—4 beds in Isolation Ward.
Children—2 cots in Isolation Ward.

During the period August 1st to December 31st the following numbers of patients were admitted into hospital from the clinic:—

	Gon.	Sy.	N.V.D.	Total
Men	7	8	1	16
Women and Children	8	12	2	22

Treatment.

During the five months the new Clinic has been open, the following injections were given:

Intra-venous Injections	771	
1. Novarsenobillon		361
2. Stabilarsan		374
3. Sulphoxyl-Salvarsan		31
4. Silver-Salvarsan		5
Total		771
Intra-muscular Injections	1577	
1. Bismuth Preparations...		1314
Spirillan, 209		
Bismostab, 257		
Neo-Trepol, 848		
2. Mercurial Preparations		37
3. Sulpharsenol		22
4. Colloidal Preparations...		204
Other Injections.		
1. Vaccines		285

Treatment—New Departures.

During the period the new Clinic has been open, several new preparations have been used with satisfactory results.

In the treatment of Syphilis several preparations of Bismuth have been used with excellent results, viz., Spirillan, Neo-Trepol, and Bismostab, all having been given by the intramuscular route.

A recent preparation of Arsenic, known as Sulphoxyl-Salvarsan, has been administered in a few cases, but appears to be rather toxic.

Two new Mercurial compounds have been in use in a few cases, viz., Colloidal Calomel and Contra-Luesin.

In the treatment of Gonorrhœa four new preparations of Colloidal Silver Chloride have been on trial with good results; they have been used for irrigation and instillation treatment, and in the form of pessaries.

Three of these preparations were submitted for trial by Professor Eyre and reports furnished.

The Clinic Laboratory.

Apart from routine examinations of urethral discharges, urines, and of preparations for dark ground illumination, experimental work has been carried out in several directions.

1. Various methods of speedy processes of staining, both new and old, for Spirochæta Pallida have been investigated.

2. A large number of tests have been carried out in connection with the possible increase of bile-pigments in the blood serum of patients receiving arsenical treatment for syphilis, with a view to controlling the dosage of the arsenic preparations and avoiding the complication of jaundice and dermatitis.

For this purpose the tests of Van den Bergh and Fouchet were employed, the total number up to the end of the year being 224.

The results of this investigation have proved to be of value.

3. The sigma flocculation test for syphilis was commenced in the clinic laboratory in December, a few tests only being carried out during the month.

The Hospital Laboratory.

From August to December inclusive 1,984 pathological specimens from the V.D. Clinic were examined in the hospital bacteriological laboratory.

Slides and Urines for Gonococci	1265
Urines for Tubercle	8
Complement Fixation Tests ...	711
Total	1984

VERNON E. LLOYD,
M.B., B.S., M.R.C.S.,
Director,
The Department for Venereal Diseases.
January 20th, 1925.

Dental Notes.

The Psychology of the Hospital Patient from the Dental Side.

By ARTHUR BULLEID, M.R.C.S., L.R.C.P., L.D.S.

PSYCHOLOGY has been defined by McDougall as the "positive science of conduct or behaviour." This definition, in the words of the author, lays stress on "the objectively observable facts of outward behaviour or bodily action in which mental activity expresses itself." Whilst the psychologist is often concerned with another aspect of the science—namely, *introspection* or the subjective side of psychology—the practical dental surgeon is rarely concerned with anything but the former, that is, the conduct or behaviour of the patient as a reflection of the workings of his mind.

Before one considers the more complicated type of mental reaction it would be advisable to make a survey of mental development and to become familiar with terms now in use in describing mental processes.

It is generally accepted that the foundations of mental life are *instincts* and that these supply the driving power for all mental activity, conduct and behaviour. As an example, we may mention the instincts of escape, pugnacity, sex, curiosity, self-assertion, self-abasement, etc. *Instincts* are inherited, not acquired, and it is the blend of instincts in their varying strengths that form what we call *dispositions*. Thus we speak of an irascible, timid, sociable, vain or submissive disposition.

With the working of each instinct there is exhibited a corresponding *primary emotion* and it is this emotion that enables us to recognise the particular instinct at work. Thus, the emotion of anger accompanies and typifies the working of the instinct of pugnacity; that of fear the instinct of escape; lust the sexual instinct, and so on.

In the experience of the individual the primitive emotions tend to become fixed to various objects, classes and persons, giving rise to what we call *sentiments*, and these sentiments being permanent structures of the mind have a powerful influence in directing or controlling the behaviour of the individual. Thus we develop *sentiments* of love or of hatred according to the type of our experience.

We are now in a position to consider the peculiar reactions that may arise from dental disturbances and we may divide them into:—

(1) Mental reactions unassociated with toxic states;

(2) Mental reactions caused by toxic states.

A sample illustration of reactions unassociated with toxic states is that given by a slight toothache, or by the sharp edge of a filling; the attraction is so distracted by these causes that a condition of irritability and depression is quickly brought about. Pure depression, sometimes of a serious nature, is often caused by unsightly teeth or badly fitting dentures, as these incapacitate the patient from taking part in social activities and at the same time act as a severe blow to his self-regarding sentiment. This is quite a noticeable feature amongst the ladies who attend the Dental Department on a Saturday morning!

Under Group (2)—i.e., mental reactions caused by toxic states, severe dental sepsis is particularly liable to bring about states of *depression*, sometimes with *anxiety* or even *confusion* by reason of the auto-intoxication set up.

Having now considered the patient in general in the foregoing, we shall now approach the dentist's chair. Here *apprehension*, putting the patient (especially if young) into a state of *tension* and *anxiety*, largely founded on the *emotion of fear*, plays an important part. This is due to the painful experiences of our ancestors and the traditions handed down by them, or in the case of some adult patients (Hospital ones in particular) to previous personal experiences.

All these factors tend to bring about a number of more or less constant classes or types with which every dental surgeon, and possibly dental student, is familiar.

(1) *Sociable type*—(i.e., more common possibly among the "fashionable lady" type than the Hospital, though by no means confined to the former).—This type visits the dental surgeon or Dental Department as a means of affording her some distraction—possibly having some pleasurable treatment, such as the polishing up of the teeth or the taking of X-ray films. Naturally this type of patient does not require any active psychological treatment

by the dentist, though probably she occupies a good deal of time that could be better employed.

(2) *Placid type.*—Exemplifies the individual who visits the dental surgeon with the same sang-froid as he takes his morning tea or supper beer. He generally seems to know exactly what is wrong and wants it treated by the most efficient and quickest method. He may be a considerable trial (or joy) to the new dresser in the Conservation Room.

(3) *Neurotic type.*—This is the reverse of the preceding one. Allied to a neurotic or highly strung disposition is the *fear* and *apprehension* occasioned by the visit to the dentist. In this type a simple examination of the mouth may produce *great distress* and the noise of the "engine" might well be the foreboding of an earthquake. The underlying psychological reaction is undoubtedly an *excessive emotion of fear*, in part *inherited*, in part due to previous painful experiences personally, or *suggestion* from others.

(4) *Difficult type.*—This is really not a type peculiar to dental work, but is found in all walks of life. This type of patient will visit the Dental Department or the dental surgeon readily, but is never satisfied with the most painstaking work and will harrass the poor unfortunate dentist or student for months and even years. There can be very few dental students who have not met this type, particularly in the Prosthetic Department, and very few who do not hate him like the English summer weather. He is the type of patient who makes the unfortunate student slip down the stairs and smoke the quiet cigarette. The psychological explanation of this reaction is most difficult, but it probably has its origin in a disharmony of the instinctive tendencies.

(5) *Suffering type.*—This type does not differ from that of the genuine patient who visits her doctor for the relief of pain or distress. As in the case of the latter, the patient generally does not seek treatment until the condition is far advanced and the discomfort or the resulting bodily ill-health intolerable. The psychological explanation is a most intricate matter and is largely concerned with disposition and character.

(6) "*In extremis*" *type.*—This is not a type in itself, but may be any patient who is simply reduced to a condition of frenzy by intolerable pain and is therefore willing to undergo anything for its relief. It is met with in the Dental Department amongst those patients who have an acute alveolar abscess where the pus is burrowing through the alveolus.

A broad survey of the above types may enable us to formulate some general conclusions in regard to the psychological manifestations common or peculiar to dental patients, and at the same time may indicate methods of dealing with them.

In the first place we must lay stress on the important rôle which the *fear state* plays in the make-up of the individual. Appreciating this fact, it is essential that all efforts should be made to allay these fears before any *active* measures are proceeded with and that a sympathetic understanding should be produced between patient and operator.

This can be done by reassurance, by suggestion, by well-timed gossip which will distract the patient's attention (akin to the gossip of the barber during a bad shave!) and by many other manœuvres which will occur to the mind of the inventive operator.

Guy's Hospital Dental School.

The following Prizes have been awarded:—

Senior Prize in General Subjects—

Prize.—Bradlaw, R. V.

Prize for Operative Dental Surgery—

Prize.—Screech, E. N.

Certificates.—Boyd, C. B., Ford, W. C. G., Oliver, T. T.

The Directory of Guy's Men.

IT is with great regret that the publication of the "1925 Directory of Guy's Men" has been so long and so unavoidably delayed. It was hoped that at last it would be published before the end of the month, but the "lock-out" of more than 4,000 men and women by the Master Binders' Association of London has caused further delay. We hope that the dispute butween the Master Binders and their employées will be settled very quickly, so that the "Directory" may be bound and sent to subscribers as soon as possible.

Correspondence.

The Biennial Festival.

DEAR Mr. Editor,—It is my privilege to write and remind you that 1925, which is the Bicentenary Year at the Hospital, is also the year during which the Biennial Festival should be held. At a meeting of the Staff recently it was unanimously decided to ask Sir Alfred Fripp to preside at the Festival this year. I am very glad to say that Sir Alfred has consented to this, and I hope that in view of his presidency and also of the Bicentenary that the Biennial Festival will be a record one. The date has been fixed for Friday, 16th October, at the Connaught Rooms.—Yours sincerely,

ARTHUR W. ORMOND,
Hon. Sec.

9, Devonshire Place,
Upper Wimpole Street, W.1.

Guy's Hospital Ball in Derby.

A BALL in aid of Guy's Hospital and under the the distinguished patronage of The Duchess of Devonshire, The Duchess of Rutland, The Marchioness Curzon of Kedleston, The Marchioness of Granby, The Lady Maud Baillie, The Countess Ferrars, The Viscountess Petersham, The Baroness Burton, Lady Markham, Mrs. Drury-Lowe, Mrs. Fitzherbert Wright, Mrs. Leslie Wright, Mrs. H. B. Craven, Mrs. M. Deacon, and others, will be held at the County Assembly Rooms, Derby, on Thursday, 16th April, 1925. Mr. Conri Tait's Band has been specially engaged.

Dancing, 9 p.m. to 2.30 a.m. Tickets 12s. 6d. (inclusive).

Dance Committee.—Mrs. Coleman, Mrs. King, Mrs. Hughes, Mrs. Parry-Jones, Mrs. Kidman, Mrs. Sawday and Mr. W. Allan Reid.

Tickets, for which early application should be made, can be obtained from Messrs. Edgar Horne & Co., The Strand, Derby; or from any member of the Dance Committee.

It is hoped that all local Guy's men and women and their friends will support this Ball.

Guy's Hospital Maternity Samaritan Fund.

For the provision of Food, Clothes, Coal, Medical Comforts and other necessaries for destitute mothers.

STATEMENT OF ACCOUNTS.

For the Year Ended December 31st, 1924.

RECEIPTS.

	£ s. d.	£ s. d.
1924.		
Jan. 1—		
To Balance brought forward from last Account—		
Cash at Bank	99 12 8	
Cash in Hand	2 16 9	
		102 9 5
„ Subscriptions and Donations—		
As per List	46 16 6	
Chapel Fund Grant ...	4 14 4	
		51 10 10
		£154 0 3

PAYMENTS.

	£ s. d.	£ s. d.
1924.		
Dec. 31—		
By Food and Coal	0 13 6	
„ Nurses' Expenses ...	9 10 1	
„ Nurses' Requisites... ...	2 12 2	
„ Travelling and Ambulances	2 17 0	
„ Printing, Stationery and Postages	0 4 0	
„ Domestic Sundries ...	0 13 6	
		16 10 3
„ Sander, Mrs. (for making Baby Doll)		2 0 0
		18 10 3
„ *Balance carried forward*—		
Cash at Bank	134 3 6	
Cash in Hand... ...	1 6 6	
		135 10 0
		£154 0 3

Audited and found correct,

W. J. CURRY,
Corporate Accountant Auditor.

February 27th, 1925.

Reviews.

General.

Ultra Violet Rays in the Treatment and Cure of Disease. Dr. P. HALL. Published by Messrs. W. Heinemann, Ltd. *Price 7s. 6d.* net.

THIS little book has been written by Dr. Percy Hall, who has had a very wide clinical experience of the use of ultra violet rays, not only for the medical profession, but for the more educated members of the laity.

That it contains introductions by Sir Henry Gauvain and Leonard Hill is a strong recommendation.

From a short history of the use of sunlight as a therapeutic agent, Dr. Hall shows that it is the ultra violet portion of the spectrum which is therapeutically active, and passes to the discussion of the use of artificial means for the production of these rays. He decides in favour of the tungsten arc lamp, and gives an excellent description of the technique advised in the use of this lamp.

The remaining portion of the book is devoted to the description of cases treated. The use of ultra violet therapy in skin diseases and in rickets is now well established, but the author recommends their use in many and varied conditions, including chronic joint conditions, neurasthenia and chronic pulmonary conditions, and it remains to be seen whether the good results claimed by the author in these various diseases is upheld by other workers. The book can be thoroughly recommended as an interesting and very readable account of this form of treatment.

Elementary Morphology and Physiology for Medical Students. J. H. WOODGER, B.Sc. Published by the Oxford University Press (Humphrey Milford). *Price* 12*s.* 6*d.* net.

THE author of this book, who is actively engaged in teaching biology to students of medicine, is to be congratulated on producing such an excellent text-book for their use. In it all the types prescribed by the various examining bodies are fully and clearly described, beginning with the unicellular organisms and working up the scale to the mammalian type. The various parasites, which the student will encounter in his clinical studies, are included. Due stress is laid upon the important subject of morphology, while embryology is fully dealt with. Chapters are devoted to heredity and elementary histology and physiology. At the end the author gives an elementary account of animal behaviour.

The book is not a guide to laboratory work, but it gives a rational explanation to those facts learnt in the laboratory. The descriptions are clear and concise and the diagrams excellent, while the printing and general arrangement of the work are all that can be desired. The student who reads this book conscientiously should not fail to have a sound knowledge of "the general characteristics of living things and processes," which is so valuable to him later in his career.

The World Task of the Christian Church, being Addresses delivered at a Conference on International and Missionary Questions, at Manchester, December 31st, 1924, to January 6th, 1925. Published by the Student Christian Movement. *Price* 2*s.* 6*d.* net.

THIS little book contains the more important addresses delivered before some fifteen hundred students, representing most of the Universities and Colleges in the British Isles. The occasion was one of the quadrennial conferences organised by the Student Christian Movement once in each student generation, the aim being to study the world situation in in the light of the Christian Gospel.

The study makes remarkably interesting and inspiring reading; throughout is struck a strong note of sincerity and conviction, and above all of unswerving faith in the power of the Holy Spirit. The problems of the Church, of race, of Europe, India, Africa, and China, are frankly reviewed by such authorities as the Bishop of Manchester, Mr. J. H. Oldham, Dr. Martin (of the "Journal de Genève"), Dr. Garfield Williams and Mr. Koo. Matters arising out of consideration of these problems, the call to service, God in human life, the Christian society in the world and its immediate task, are discussed by well-known leaders in the Bishop of St. Albans, Mr. Studdert Kennedy, Dr. Cairns, Dr. David Williams and Dr. Wood.

With its robust commonsense and breadth of outlook, "The World Task of the Christian Church" can be heartily commended as a valuable contribution to modern thought, and as a statement of the only ultimate solution, age old yet ever new, of the many and varied problems of the present day.

Surgery.

Surgical Operations; A Text Book for Students and Nurses. By E. W. Hey-Groves, M.D., M.S., F.R.C.S. Second Edition. Published by Messrs. Humphrey Milford, Oxford University Press, London. *Price* 21*s. net.*

THE plan followed in this book, in dealing with each operative procedure, has been to begin with a short account of the reasons why the operation is performed, to continue by naming the instruments required, describing the steps of the operation and concluding by an account of the special points to be observed in the after-treatment of each condition. An endeavour has been made to make it suitable to students in the early part of their clinical work as well as to nurses.

It is the general rule for those students, who remember to do so, to make enquiries as to the methods of sterilising instruments and materials the day before their viva voce examination. In the book under review, these methods are explained in an appendix to the chapter on general surgical technique. The descriptions of the various operations are well illustrated and the volume concludes with illustrations of the commoner instruments seen in the operating theatre.

There are a large number of similar books to be seen on the shelves of most medical book sellers, but those, who require such a one, should certainly look through the one under review. It will be found most useful for men doing the junior surgical appointments and, like all the works of the Oxford University Press, is admirably produced.

Radiology.

An X-ray Atlas of the Normal and Abnormal Structures of the Body. By Archibald M'Kendrick and Charles R. Whittaker. Published by Messrs. E. and S. Livingstone, Edinburgh. *Price* 25*s. net.*

THIS is one of several X-ray atlases that have been recently published or re-edited. In most cases the radiograms are delightfully clear, but some, for instance number 196 (Plate L), are not up to the general standard. The first sixty radiograms have been devoted to the study of the normal joints of the limbs and have been made of greater value by presenting the different appearances caused by an alteration of the focus point. Sections are devoted to injuries and diseases of the limbs, to the head, neck, thorax and spine and to the abdomen and an appendix of a few rare conditions has been added. We have seen clearer radiograms of the skull and face than some of those included in this volume but those of the abdomen are generally good.

As a whole the atlas answers its purpose admirably and is thoroughly recommended.

Nursing.

First Steps in Nursing. By E. M. Fox, R.R.C., S.R.N. *Price* 3*s. net.*

MISS FOX gives a very good general idea of hospital life and work, for those who contemplate entering the nursing profession. While pointing out the difficulty of adaptation to a new environment, she sets very high ideals, and shows that nursing is an art well worth cultivating.

She explains fully the work of a junior probationer, and has added a chapter on State Examinations.

The Modern Nursing of Consumption. By Dr. Jane H. Walker. Published by The Scientific Press Ltd. *Price* 2*s.* 6*d. net.*

THIS book contains much useful information for those who wish to specialise in the nursing of phthisis. Dr. Walker does not enter into full pathological details of tuberculosis, but gives careful instructions for the treatment of patients, either in a sanatorium or in a private house.

There is a special chapter dealing with artificial pneumothorax, and the working of the apparatus.

In an appendix is given the syllabus of examination of nurses by the Society of Superintendents of Tuberculosis Institutions.

Ophthalmology.

The Routine Examination of the Eye. Basil Long. Published by Messrs. Ed. Arnold & Co. *Price* 6*s. net.*

THIS must be almost the best publication of its kind. Although as a class books of this sort have as their end the furtherance of easy and accurate diagnosis of ophthalmological conditions, the aims of the author are usually defeated by his methods. The generally accepted form of publications of this type seems to demand a mass of rather ill-assorted eye "lore," much of it obscure,

some purely traditional, together with a modicum of useful advice on the practical business and difficulties of examination. This is a fault, and one which Mr. Long's "Routine Examination of the Eye" seems to amend. It is well arranged, thorough and up to date, apropos of which last may be mentioned in particular the paragraphs dealing with the exact measurement of exophthalmos by Horniman's Rule and the examination of the interim of the globe by the transilluminator. A pleasing feature is the painstaking way in which the author deals with such common, and to the uninitiated, dismaying procedures as retinoscopy and eversion of the lids. Not confining himself to the right way of performing these exercises, Mr. Long delights us by recognising the number and nature of the difficulties which may arise and by dealing with them in a manner commensurate with their importance. To any would-be ophthalmologist this boook should mean at any rate a better understanding of the subject and possibly the sowing of no little sorrow.

Sport.

Rugby Football.

Guy's v. London Irish.

ON Saturday, March 14th, with rather depleted forces, we took the field against the London Irish at Norbiton. Keith-Williams took the vacancy on the left wing and right well did he fill the position. The forwards included E. E. Neser and J. D. Visser. But just after half-time Hops was hurt, very bad luck this. Hops has played so constantly, that it was sad indeed to see him retire, one hoped he would be fit to play against London on the following Wednesday.

The game had scarcely commenced before Graham-Davies got Fellowes-Smith away and he made a fine run to get right round for Van Schalkwijk to goal. After this we took things too lightly and there was much wild passing. The Irish forwards were very active and several times pressed us heavily. In Boyle, however, Guy's have a first class reserve; he was very cool, tackled well and kicked a good length with accuracy. Then came an excellent piece of work by the Guy's back division, and Graham-Davies got over, but he took too long to touch down and lost the ball altogether in the end. This was all the first half brought us.

Five minutes after the recommencement Fellowes-Smith raced in again with a try by the corner. Hutchinson took the long kick and only just missed success. Then our forwards slackened and the tackling also fell away, so that the Irish forwards with a strong dribble got a try and goal, 8 points to 5. It was time to play up. Keith-Williams, after a good run, sent in to Graham-Davies who found Fellowes-Smith beside him and a third try fell to the last named. By far the most prolific try getter, Fellowes-Smith's total will be interesting when the season ends, and Graham-Davies has helped him most skilfully. Just after the wingman was over again, but the Touch Judge awarded touch in goal. Then Scholefield gained what looked like a score, but a scrum outside was ordered. However, little time elapsed before Van Schalkwijk ended a good afternoon's work by gaining a try and converting himself. As he had also kicked a goal from the last try the final score was Guy's 3 goals 1 try (18 points), to 1 goal (5 points).

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, H. Graham-Davies, C. L. Steyn, H. Keith-Williams; W. Hops, J. G. Van Schalkwijk; J. Durr, E. E. Neser, B. G. Scholefield, N. M. Holloway, E. W. Hutchinson, De Wet Vorster, J. D. Visser, J. W. Popplewell.

Guy's v. London.

Final Round, InterHospital Cup Tie.

CONGRATULATIONS, hearty and sincere, to J. G. Van Schalkwijk, the Captain, and to his team, who have again brought back the Cup to our custody. The most fitting reward and the most cherished honour that the Captain would have sought is that he should lead his team to victory. Since Van Schalkwijk has been with us, he has seldom missed a match and if any one can have done more for Guy's football, I should like his name. Many times, partially injured, and often very tired, no matter so long as he could get up a run, he has always taken the field and may Guy's never lack such sportsmen.

The game had only commenced a minute when out came the ball to Fellowes-Smith; off at once, he surprised everyone, and Raymond, the London full back, most of all, by running behind the line for a try 55 seconds from the kick off. Neser's excellent kick just missed the upright. In the movement Graham-Davies was badly shaken and moved to the wing position, Steyn coming in the centre. A thousand pities, because Graham-Davies and Fellowes-Smith have played so well together throughout the season. There were several stoppages for injuries during the next quarter of an hour and soon after that time Hops was concussed. After trying manfully to continue he was forced to retire. Hard luck indeed. Neser filled the vacancy, and right well did he do his part. London, however, were hooking the better and their passing was good. Rae, on the right, got away once at great speed, Steyn tackled him up from behind and Rae passed into the safe hands of Neser who cleared to midfield. Guy's had some passing; the ball came to Steyn, but he kicked low. We all wished he would feed Fellowes-Smith. Once he did and Fellowes-Smith cross-kicked, the ball being cleared by Gordon. Again the movement ensued and a race between Fellowes-Smith, Raymond and Steyn, ended in Raymond getting the touch. London soon had us back, their breaking and following up were terrific. They were on to Spence repeatedly, but never did the full back falter; he was steadiness itself. Both full backs were extremely good. Then Raymond had a fruitless shot from a penalty. More good passing by London followed and they had much of the ball. At length Kendall headed a great rush and Graham-Davies just managed to secure the touch. At half-time we still led by 1 try.

The second half was most exciting, both sides giving a fine open display. Waring

THE CUP-FINAL TEAM.

Back Row.—E. E. Neser, E. W. Hutchinson, N. M. Holloway, J. W. Schabort, De Wet Vorster, J. Durr, T. Vile (Referee).
Centre Row.—H. Graham-Davies, G. Fellowes-Smith, J. G. van Schalkwijk, C. L. Steyn, B. G. Scholefield.
Front Row.—W. Hops, V. R. Preen, P. D. B. Spence, W. H. Myburgh.

of London was a constant source of danger, his following up being splendid. The ball was once got back beyond Spence, but Graham-Davies ran behind and cleared most cleverly. Then Guy's threequarters took a hand, on more than one occasion the final pass to Fellowes-Smith went astray. It looked as though the passing was not breast high. Then Durr had a great chance, but knocked on. Passing swung to the left, but no ground was gained. Graham-Davies ran well, but he had no room, though twice he got in useful cross kicks. Raymond came up and tried a run or two but was carefully watched. All this time the London forwards were constantly giving us much to do. They were a good pack, well led by Macdonald. Steyn had a pot at goal. Now came a rare chance, but our three-quarters were much too deep and wide. The ball came our way, reached Steyn, but his throw to Van Schalkwijk was a terrific distance, and ere Graham-Davies touched leather, the attack was smothered. The tackling was good, but ours too high. Men were pulled down, but often a London man slipped one or two of our tacklers. Now Raymond forsook the full back position and came right of the three-quarter line. He tried a couple of runs, but our men watched him thoroughly. All through the afternoon Scholefield had played wonderfully well, and now he added to his laurels, by his clever marking of the Oxford man. With two minutes to go, Steyn dropped a clever goal, and by this margin did Guy's regain the trophy:—1 dropped goal and 1 try to nil.

OFF TO RICHMOND WITH THE MILK-CAN.
(These Students collected £221 13s. 4d. for the Hospital on the way down.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, E. E. Neser, W. H. Myburgh, N. M. Holloway, J. W. Schabort, E. W. Hutchinson, De Wet Vorster.

Spence was steady and sure as ever. Fellowes-Smith had fewer opportunities than usual. J.

G. Van Schalkwijk kicked with great cleverness, but the hearty London tackling prevented him and Steyn from getting through. Graham-Davies was good and in defence splendid. Hops, the victim of misfortune, but full of pluck, came back for a few minutes before the end and lent aid to the forwards. V. R. Preen was not as good as usual, though occasionally showing his old brilliance. Scholefield and De Wet Vorster were the best of the pack, though the silent workers, Myburgh and Holloway, did their all. Schabort and Hutchinson with Durr were not so much in the picture as in former matches. Neser, as scrum half, did well, and proved once again his extreme versatility.

The Cup is ours again, and right hard have we fought for it. All congratulations and thanks to the gallant men who have brought back to us the Challenge Trophy.

Association.

Final of University Cup v. Royal Dental Hospital.

THIS game was played at Craven Cottage on Wednesday, March 18th. Unfortunately the day was the same as the "Rugger" Final, and so we found ourselves without supporters.

We reached this stage of the Cup by defeating in turn East London College, 4—1; Birkbeck College, 2—1; and University College, 3—2.

The ground was very hard and the ball lively which made ball control and shooting very difficult; as a result none of the numerous attacks that Guy's made were successfully finished during the ordinary time.

During the first half Guy's were attacking for most of the time, due chiefly to good work by Walters, Williams and Couch and the backing up of Gray at right half; but we were up against a stubborn defence who excelled in spoiling. The only danger to the Guy's goal came from fugitive raids by the Dental forwards.

The second half ran very much the same course as the first half with Guy's again missing narrowly on several occasions; but no goal came and extra time had to be played.

During the extra time there was only one team in it, and that Guy's; but the Dental defence was still very sound, and in the first quarter of an hour no goal was scored. In the second quarter Couch and Williams changed places and this alteration had the desired effect as after eight minutes Couch scored from a good centre from Walters. The same player scored a second goal two minutes before time after a hot attack on the Dental goal; and so after two hours 'football Guy's ran out worthy winners by two goals to none; and the Cup now returns after an absence of five years.

Result.—Guy's 2, Royal Dental 0.

Guy's Team.—Aronsohn; Hancock, Bernan; Gray, O'Meara, Smallshaw; Walters, Evans, Williams (capt.), Couch, Hewetson.

Aronsohn had a quiet afternoon with hardly a shot to save; the backs were sound; Gray and O'Meara were prominent at half; while the forwards showed good combination, but finished weakly.

Guy's Hospital Rowing Club.

ON Saturday, March 7th, and Wednesday, 11th, the University of London Allom Cup Eights were rowed at Putney. On the first day Guy's defeated East London College and King's College, and on the second day, in the final, came in two lengths ahead of East London, but were disqualified for "boring." This year the University of London Boat Club, in an effort to establish a precedent on the tideway, introduced a new scheme of racing. An order of boats on the river was drawn up, the first three boats racing against each other in the first event, the losing boat going down to row against the winner of the race between the fourth and fifth boats. In the final, the first two boats in event I. and the winner of the last event contested for first place.

The date of the races was much earlier than last year, and the course shortened, being from Vesta Flagstaff to Harrod's Wharf. All these alterations were made shortly after the Allom Eights last year, but for some reason Guy's were not informed until the end of January. This took us somewhat by surprise and it was debated whether we should again enter a boat. However, being holders of the Cup, it was decided that an effort should be made to retain it.

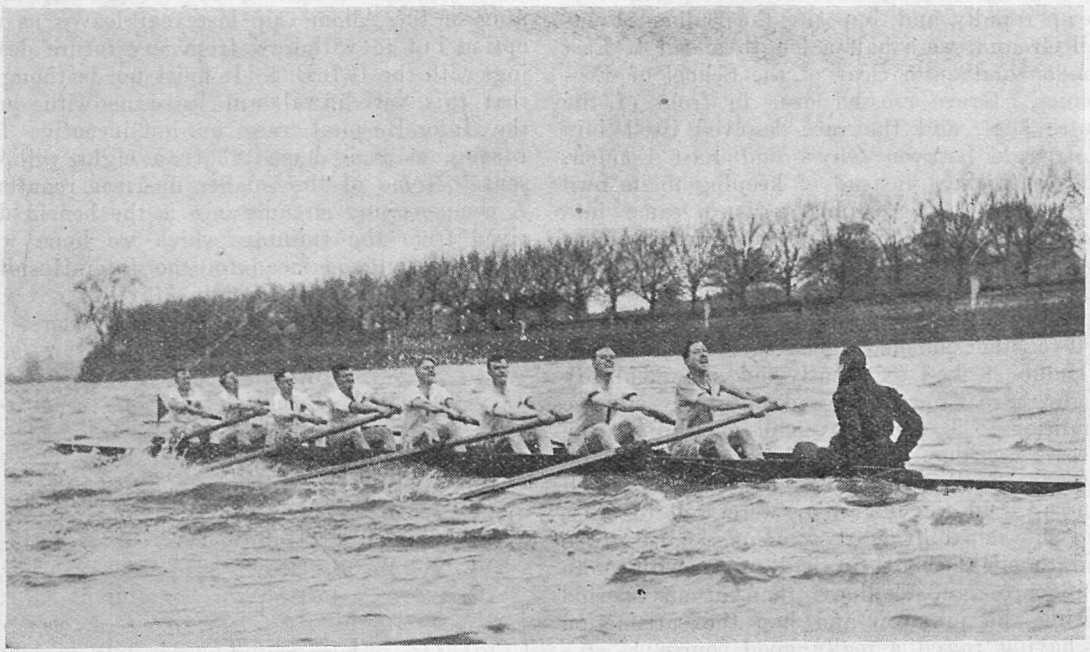
The training was beset with difficulties. The time of year did not lend itself kindly to evening rowing, several members of the crew had

examinations unpleasantly close, and at one period influenza seemed likely to produce dire havoc. Despite these difficulties considerable keenness was displayed, and for the last two weeks the eight went out every night, often a cold and wet proceeding.

Owing to the unavoidably short period of training, the change into a light boat was not made until five days before the race, but after a fairly successful course two days before the race we had reason to be hopeful. Mr. Hylton Cleaver, of the London Rowing Club, again undertook the coaching of the crew, and his help was invaluable. Our thanks are also due to Mr. M. E. Shaw who coached us on several Saturdays, and also to Mr. A. Tom, an old member, who, on more than one occasion, was drawn from his arduous duties at the West London Hospital to substitute for some member either stricken with flue or who had found the demands of work too strong for him.

There was a goodly crowd of supporters on the tow-path, and their enthusiasm and lusty exhortations, not dampened by an unpleasantly long wait in a snow-storm, greatly inspired the eight.

In the first event, King's College had the Middlesex Station, East London the centre, and Guy's, Surrey. Guy's made a good start and, rowing about 32 to what must have been quite 38 or 40 of the other two boats, were a length ahead at Beverley Brook. Rounding the bend bad water and a head wind were encountered, and the stroke dropped to 28. East London spurted and started to come up. No. 3 in the Guy's boat unfortunately lost his slide and this completely upset the rhythm of the boat, a considerable amount of water being shipped. East London continued to spurt, and opposite the mile post Guy's led by only a canvas. At length, managing to get together again, with No. 3 rowing a very plucky race, on a fixed seat, Guy's reached the finish three-quarters of a length ahead of East London with King's College $1\frac{1}{2}$ lengths behind the second boat.



THE HOSPITAL EIGHT.

The final was rowed the following Wednesday in the opposite direction. Guy's again had the Surrey station, East London, Middlesex, and the School of Economics centre. There was considerable delay at the start. Grove got Guy's neatly on to their stake boat, only

to be let go again to enable the waterman to free the School of Economics who had drifted happily down broadside on and fouled the Surrey stake boat. In his next attempt the cox of the School of Economics nearly fouled the Middlesex stake boat and it was only by the greatest good fortune that he at length got his boat on his stake boat at all. Guy's got a bad start and, with the outside of the bend, were still half a length down on East London and about level with the School of Economics after the first two minutes, but rowing a much slower and longer stroke than the other two boats, were easily holding their own. East London spurted but were unable to increase their lead. Guy's now began to go up rapidly and, opposite the Fulham Football Ground, were half a length ahead of East London and quite clear of the School of Economics. Grove crossed over in front of the centre boat, and the race resolved itself into a struggle between Guy's and East London. The centre boat instead of keeping to its own water crossed over, and its bows came into contact with the Middlesex boat just in front of its rudder for about six strokes. The boats freed themselves without impeding the race. Guy's, with the race well in hand and rowing well together, finished a good two lengths ahead.

Huddy stroked excellently and showed ability to row a really good race despite very adverse conditions. To him no small measure of the success was due, but the whole crew rowed on the top of their form and more than backed him up. In the final they were well together and showed ability to row a long, hard stroke and to sit the boat in bad water with more confidence and steadiness than at any period during the practice, and had the satisfaction of having rowed a really good course.

The umpire disqualified Guy's for "boring." His decision was somewhat mystifying, as according to all rules of boat racing, Guy's had rowed a perfectly proper course, had not been involved in any foul, and no appeal had been made against them. There is no rule in the Amateur Rowing Association against "boring," the only basis of a foul being definite contact. The opinion of all the rowing authorities who were consulted and who witnessed the race was that there was no reason for the disqualification. Among these was Bossy Phelps, who steers the varsity coxes over the course. His son, who is an experienced cox, was steering the umpire's launch, and he also said Grove steered a perfectly proper course. Grove, in fact, steered two excellent courses, and nobody with any knowledge of boat racing could dispute this.

Guy's wrote and appealed for a re-row. This should certainly have been offered them if they had been dealing with people familiar with ordinary rowing methods and the unwritten laws of all sporting contests. Unfortunately this was not the case. At a Committee Meeting of the U.L.B.C. the re-row was definitely refused.

We think it will be generally agreed that the mismanagement of the whole affair and the scant courtesy shown to Guy's since the winning of the Allom Cup last year leaves us no option but to withdraw from any future dealings with the U.L.B.C. It must not be thought that this withdrawal will leave us with only the Inter-Hospital race as an incentive for rowing, as it is hoped that an eight will be sent to some of the smaller up-river regattas. A compensating circumstance is the benefit derived from the training which we hope will stand us in good stead for the Inter-Hospital Race which will be rowed in May.

The eight rowed in the following order—

Bow.	E. T. Clifton.
2.	—. Townsend.
3.	R. F. Prichard.
4.	—. Richmond.
5.	E. Clayton-Jones.
6.	W. H. Miller.
7.	K. S. Keele.
Stroke.	E. C. Huddy.
Cox.	W. S. Grove.

Lawn Tennis.

London v. Paris.

THE heartiest congratulations to P. D. B. Spence on representing London versus Paris at the Covered Courts Club at Dulwich two weeks ago. We quote the following account of his match with M. J. Borotra from the *Times* of March 16th—

"Although Mr. P. D. B. Spence lost by three sets to one (4—6, 6——1, 6—1, 6—4) to M. J .Borotra, he actually played very well. The style of both players lends itself to a volleying game, and the net was thus their chief objective. Mr. Spence got there by a

break service and fast forehand driving; M. Borotra by chop strokes and fast services. Of the two, M. Borotra used the more discretion, and the cut on his volleys made the ball keep low to the wood floor, which, unlike that at Queen's Club, is not polished. Mr. Spence has all the strokes, and is one of the fastest players in the court. Some of his recoveries bordered on the miraculous, but M. Borotra was at the top of his game. He was even faster at the net than was Mr. Spence. The match was a fine exhibition of the modern game."

United Hospitals Hare & Hounds.

The Kent-Hughes Cup Race.

THE Inter-Hospital Cross Country Championship was decided at West Wickham on Wednesday, March 11th, over a course of $7\frac{1}{2}$ miles. The day was fine and the course in quite good condition, as a result of which the times returned were very fast. A field of 29, which is just about the average for the event since the war, turned out to face the starter and every man was timed in.

At the word go, McCormick and Jago at once took the lead, and at half a mile out the former was leading by 10 yards with the rest of the field well up. Here, McCormick was unfortunate enough to be bitten in the calf by a dog, when the turn through the farm yard was taken. This must have shaken him considerably, but he very pluckily continued the race, though he lost his lead to Jago, while Simpson became second for a short time. During the next mile Jago established a good lead, which he maintained to the end.

McCormick, recovering his position, was, by the end of the second mile, leading Stallard, Simpson, and Darley by nearly 100 yards. Further back Guy's were doing some splendid packing and were laying the foundation stones of victory. The big hill, half way round the course, was found very trying to most of the competitors. At this stage Chitty and Rake were leading Wills and Thomas, while just behind Stewart was having a great fight with Bellerby.

Stallard and Simpson both ran well in the last mile, and the former, although unable to make much impression on McCormick, was comfortably ahead of the latter in the end. Darley was only just beaten by Simpson, and then there was an interval before Walker came along on his own. As Bart.'s had now finished three men to Guy's one, the exictement was intense, but now the results of Guy's splendid packing became apparent, and Rake and Wills were seen coming in together with Thomas, Chitty and Stewart at short intervals just behind. This made sure of a win for Guy's, although Bart.'s finished their last two scoring men in the next two places, and they are to be congratulated on the fine struggle they put up.

The Guy's team all ran splendidly, and especially Stewart, who was unable to shake off Bellerby until about a quarter mile from home, and who was distinctly unlucky to miss being in the scoring five. Drake was obviously short of practice, but was going well towards the latter part of the race. Calhaem was somewhat lower than expected, but is certainly capable of much better things and should do well next year, as should Way when he has had more experience.

Comparing the times with those for the Inter-Collegiate Race held over the same course the previous week, it is seen that those who ran in both races improved very much in the Cup Race. Jago was faster by $2\frac{1}{2}$ min., Wills and Stewart 2 min., Rake 1 min., McCormick $\frac{3}{4}$ min., and Chitty over $\frac{1}{2}$ min. The winner's time was 11 secs. worse than the record for the course made by L. C. Radcliffe of the Blackheath Harriers when running for his Club against the South London Harriers in November last.

For the honour of running most men Guy's and Bart.'s tied with nine starters each, while King's had 7, and University College 4.

Dr. H. A. Munro (the President) started the race and acted as judge and he was assisted by Mr. E. D. Fowler-Dixon as timekeeper. Mr. A. R. Thompson (Vice-President) Mr. W. Kelsey-Fry (Hon. Treasurer), and Mr. Gaymer-Jones (Guy's) were also present. The thanks of the Club are due to them all, as also to C. S. Wise of St. Bartholomew's who laid the trail, and to Messrs. J. D. S. Thomas (Guy's) S. E. Theis (Guy's) and W. S. Hinton (Bart.'s) who very sportingly came down and cheered on all the competitors.

After the race nearly all the members stayed for a Club Dinner, at which Dr. Munro took the chair. Thanks to the generosity of those sportsmen who were sitting at that end of the table everyone was made thoroughly happy by the time Dr. Munro gave the company the toast of the King and permission to smoke.

The Cup was then presented to Guy's and a few speeches were made, Mr. Thompson being especially applauded for entertaining us with stories of how he passed the final F.R.C.S. without knowing the correct knife to use for a certain amputation.

A vote of thanks was passed to Walker of Bart.'s for arranging the Dinner so well, and then all the company wended their way to the station and, it is hoped, went home soberly.

Order of Finish:—

1. M. E. M. Jago (Guy's), 45 mins. 8 2-5 secs.
2. G. F. H. McCormick (U.C.), 45 mins. 44 secs.
3. H. B. Stallard (Bart.'s), 46 mins. 1 sec.
4. A. Simpson (King's), 46 mins. 15 secs.
5. W. W. Darley (Bart.'s), 46 mins. 18 secs.
6. H. N. Walker (Bart.'s), 46 mins. 55 secs.
7. L. K. Wills (Guy's), 47 mins. 36 secs.
8. G. W. Rake (Guy's), 47 mins. 43 secs.
9. J. G. S. Thomas (Guy's), 47 mins. 50 secs.
10. J. H. Chitty (Guy's), 48 mins. 1 sec.
11. G. R. S. Stewart (Guy's), 48 mins. 17 secs.
12. J. R. Beagley (Bart.'s), 48 mins. 34 secs.
13. D. H. Bellerby (Bart.'s), 48 mins. 37 secs.
14. R. P. Ross (King's), 48 mins. 39 secs.
15. D. C. Drake (Guy's), 49 mins. 8 secs.
16. F. C. Roles (Bart.'s), 49 mins. 48 secs.
17. R. H. Yelf (King's), 50 mins. 41 secs.
18. N. F. Pearson (King's), 50 mins. 48 secs.
19. J. W. Storey (U.C.), 51 mins. 20 secs.
20. T. M. Calhaem (Guy's), 52 mins. 3 secs.
21. R. M. Walker (U.C.), 52 mins. 51 secs.
22. A. H. Grace (Bart.'s), 53 mins. 24 secs.
23. J. E. Snow (Bart.'s), 53 mins. 27 secs.
24. M. Baillie (King's), 53 mins. 29 secs.
25. C. Perkins (King.'s), 54 mins. 54 secs.
26. G. H. Buttle (U.C.), 55 mins. 9 secs.
27. M. D. Young (Bart.'s), 56 mins. 17 secs.
28. M. P. Way (Guy's), 56 mins. 41 secs.
29. A. B. Hewlett (King's), 62 mins.

Team Placings:—

(Numbers 2, 19, 21 and 26 count as individuals, because University College did not start a team of 5 men).

1. Guy's Hospital.—1, 6, 7, 8 and 9=31 points.
2. St. Bartholomew's Hospital.—2, 4, 5, 10 and 11=32 points.
3. King's College Hospital.—3, 12, 13, 14 and 15=57 points.

(Varsity system of scoring).

Hockey.

Senior Inter-Hospital Tournament.

Preliminary Round Result.—Guy's 5, U.C. Hospital 2.

First Round Result.—Guy's 8, St. Mary's 0.

Semi-Final.

GUY'S played St. Bart.'s in the Semi-Final at Richmond, on Monday, 9th March, and won 3—1. The game was fast and there was little between the two sides.

The game started with a good run by L. J. Barford, from which the Bart.'s forwards received the ball and nearly scored, R. E. Smith saving but giving a corner. Guy's cleared for Barford again to run and centre well to R. L. Cautley, who nearly scored. Bart.'s now attacked in earnest, but M. F. Awdry, after a poor start, now defended well. Cautley next broke away the length of the field, but the Bart.'s goalkeeper managed to save by kicking clear. L. Catchpole then missed the goal by inches.

J. E. Willett saved the next attack on our goal, but Bart.'s continued to press, till C. N. Howitt passed to A. H. Curtis, who ran well with J. W. Schollum, but a pass to Cautley found him offside. Cautley then had another good solo run, but was not backed up.

Half-time found our opponents pressing hard and only prevented from scoring by the superlative work of Awdry and Willett.

On resumption the ball went up and down the field, neither side finishing off their attacks till Barford put in a magnificent shot from the edge of the circle, which was well stopped, but Catchpole backed up well and scored from the rebound (1—0).

After the bully-off, Bart.'s pressed and J. G. Kingsbury conceded a corner, from which our opponents scored (1—1).

We were still on the defensive until G. N. Carrell cleared to Catchpole. Bart.'s returned to the attack, but Awdry cleared well up the field for our forwards to get away and Cautley to score (2—1). Shortly afterwards the Bart.'s goalkeeper saved another shot from Cautley, and enabled the Bart.'s forwards to try again from a corner, but Howitt saved with a neat pass to Curtis, who ran to the half-way line and gave to Catchpole, who ran clear of all opposition and scored just on time (3—1).

Guy's Team.—R. E. Smith; M. F. Awdry (Capt.), J. G. Kingsbury; C. N. Howitt (Vice-Capt.), J. E. Willett, G. N. Carrell; A. H. Curtis, J. W. Schollum, R. L. Cautley, L. Catchpole, L. J. Barford.

Final.

THE Final was against St. Thomas's at Richmond, on Monday, 16th March, and resulted in Guy's winning the Tournament by 4 goals to 2, for the second time since the war.

St. Thomas's started off at a tremendous pace, and in the first few minutes scored from a roll-in, through both Awdry and Kings-

bury missing the ball (0—1). This pressure was maintained until Carrell, who most consistently plied Barford with passes, sent the latter away to centre to Catchpole. J. E. Willett then broke up a hot attack, but Awdry conceded a corner. Cautley and Barford then gave the finest display of combination of the afternoon, resulting in a centre to J. W. Schollum, who had bad luck in not scoring. St. Thomas's cleared, but Howitt returned the ball to the circle for Catchpole to score (1—1).

Shortly after Carroll again sent Barford away to centre to Cautley, who ran offside. St Thomas's then had two patches of bad luck, one shot going over our goal, and the other being missed in front of an open goal. Their left wing put in a fine centre, which Howitt cleared to Curtis, who ran well and gave to Schollum. Catchpole and Cautley carried on to the goal mouth, and from the ensuing melée Schollum scored (2—1). Catchpole then gave Barford a chance, but the latter was too slow. Willett, however, backed up strongly, and, countering quickly, neatly passed to Catchpole, who scored (3—1).

St. Thomas's now pressed hard, for Awdry to clear, and again for Howitt to save, but finally they scored (3—2).

After half-time Barford ran clear of the defence, and centred well to Schollum, who scored with a "first-time" shot (4—2). Guy's kept up the pressure, until St. Thomas's made a determined effort to equalise. Awdry and Howitt defended well, and every praise is due to Willett and Carrell for the way in which they spoilt the attacks of the St. Thomas's centre and right wing. St. Thomas's attacked on until Kingsbury cleared to touch. From the roll-in Awdry cleared up to Curtis, who centred to Cautley, who just missed a difficult back hander by a hand's breadth.

St. Thomas's replied with vigour, and Smith caused anxiety with a risky sortie, but Willett came back in a flash, saved and passed to Howitt for the latter to clear. The opposition centre forward then made a strong effort solo, but the ball went dead. Smith repulsed the next assault, and the game ended with Guy's in possession despite an offside free hit against them.

The whole team showed magnificent form, but our defence was especially sound, with Awdry and Willett the most conspicuous.

Guy's Team.—R. E. Smith; M. F. Awdry (Capt.), J. G. Kingsbury; C. N. Howitt (Vice-Capt.), J. E. Willett, G. N. Carrell; A. H. Curtis, J. W. Schollum, R. L. Cautley, L. Catchpole, L. J. Barford.

Athletic Sports.

WE congratulate C. L. Steyn on his election as Captain of the United Hospitals Athletic Club for the forthcoming season. No one is more deserving of this honour than Steyn, who has done so much in the past four seasons for both Hospital and Inter-Hospital Sport. With the fine team of athletes now studying at Guy's, he should have the satisfaction of keeping the Inter-Hospital Shield in the College Dining-room, in achieving which victory he will be ably supported by the new Honorary Secretary of the Guy's Hospital Athletic Club, L. K. Wills.

Hospital Information, etc.

Pass List.

L.D.S.

Final Examination.

March, 1925.

Part II.

E. J. Clother.
J. S. Cropper.
G. E. Glazebrook.
E. C. Grant.
N. C. Maister.
L. F. O. Seymour.
H. A. Allen.
W. J. Badenhorst.
W. P. Beresford.
G. M. Glennie.
N. Goldthorpe.
W. E. Herbert.
S. R. Howcroft.
D. A. James.
H. C. Lawrence.
A. D. Miller.
J. G. Nelson.
E. B. Rees.
F. N. Chapple.
L. Cowlishaw.
J. W. Finnemore.
G. W. Gathergood.
H. A. Gillett.
L. A. Steel.
S. Thomson.
F. H. B. Tofts.
de W. Vorster.
J. F. Wege.

Part I.

A. T. Brimmer.
E. J. Clother.
E. B. Corry.
J. E. Cropper.
H. C. Evans.
G. E. Glazebrook.
E. C. Grant.
H. C. L. Maister.
L. F. O. Seymour.
L. Walters.
G. Evans.
G. C. Ferguson.
W. C. G. Ford.
N. Harris.
W. J. R. Jenkins.
B. S. Mead.
T. M. Ackroyd.

Landon Out-Patient Tea Fund.

STATEMENTS OF RECEIPTS AND PAYMENTS.
For the Year ended March 1st, 1925.

RECEIPTS.

	£ s. d.
To Donations and Collections— (as per List)	102 17 6
„ *Interest on Invested Funds*— 5% War Bonds	5 16 4
	£108 13 10

PAYMENTS.

	£ s. d.	£ s. d.
By Cost of Tea, Groceries, Provisions Fruit, etc.		33 0 3
„ Band		12 12 0
„ Gifts of Toys, Clothing, etc.		18 18 6
„ Police Fees, Gratuities, etc.		8 17 0
„ Printing, Stationery, Postage		5 10 0
„ Decorations, Flowers, etc.		6 9 2
		85 6 11
„ Excess of Receipts over Payments carried to Balance Sheet		23 6 11
		£108 13 10

BALANCE SHEET.
March 1st, 1925.

LIABILITIES.

	£ s. d.	£ s. d.
To Accumulated Funds— Amount brought forward from last account ...	178 2 5	
Plus— Excess of Receipts over Payments for Year ...	23 6 11	
		201 9 4
		£201 9 4

ASSETS.

	£ s. d.	£ s. d.
By Investments— War Loan Bonds at Cost		150 0 0
„ *Cash at Bankers*— On Deposit Account ...	50 0 0	
On Current Account ...	1 9 4	
		51 9 4
		£201 9 4

Audited and found correct,
W. J. CURRY,
Corporate Accountant Auditor.
March 20th, 1925.

BERTHA MARTIN,
Treasurer,
Landon Tea Fund Committee,
Salomons Centre,
S.E.1.

Notices.

"Iolanthe."

ON Thursday, April 2nd, the Hurlingham Amateur Operatic Society are producing the Comic Opera "Iolanthe," at the Guildhall School of Music at 7.45 p.m., in aid of the funds of the League of Mercy. Tickets, from 7s. 6d. to 2s. 6d., may be obtained from the League of Mercy Office, 20, Cockspur Street, S.W.1, and it is hoped that support will be afforded to this charitable entertainment.

Specialities.

MESSRS. ANGUS WATSON & CO., LTD.,
Newcastle-on-Tyne.

MESSRS. ANGUS WATSON & Co., Ltd. (who are so well known for the excellence of their "SKIPPER," and other Food Products) celebrated their 21st anniversary on December 31st. 1924, when nearly six hundred employees met to present a framed oil portrait of himself to the Chairman, Mr. Angus Watson, J.P.

In addition to a "prosperity sharing" plan for the staff, and a bonus to the regular users of their goods, Mr. Watson announced that he was setting aside the dividend on £50,000 worth of ordinary shares for distribution, and had created a Trust Fund for this purpose.

Many speeches were made showing the esteem and affection felt by all members of the staff and employees towards their head, and the good-will and whole-hearted support of every worker. We wish such mutual confidence existed in every large firm, and that they would conduct their business on the same generous lines.

THE PURE LEMON JUICE CO., LTD.,
123d, Victoria Street, S.W.1.

IT is with pleasure that we draw our readers' attention to the above preparation, which is guaranteed to be made from Italian ripe lemons by a new process, and is undiluted. It can be obtained unsweetened, and sugar or honey sweetened, and makes an ideal beverage for every season of the year with the addition of either hot, cold or mineral water. It assists digestion, and helps the liver to function normally.

THE Tobacco and Confectionery Stores, at 5, St. Thomas's Street, is now under entirely new management. Mr. L. D. Durham, the Proprietor, informs us that all goods are of the finest quality, and that there is a first class Haircutting Saloon attached. Hospital Students may like to know of this.

Births.

GOSSET.—At Casa Carola, Mentone, France, to Olive E. (née Wilson), wife of Lt.-Colonel Allen Butler Gosset, C.M.G., a son.

PASSEY.—On the 15th March, 1925, at Middlefield, Haywards Heath, Sussex, to Agnes, wife of R. D. Passey—a son.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *April 11th, 1925.* *Number 959*

PASSIM

IF there be one reader beyond all others, to whom we might expect to turn confidently when in need of sympathy, support or encouragement, surely that reader should be a former Editor of the GAZETTE! And yet we have been made the subject of a cruel attack by such a man. Oh, jealousy, thou sharp-fanged, belly-crawling serpent! Are the evergreen shrubs of the philosopher's mind but green with envy and his philosophies but the philosophies of hate.

With our heart full of benevolence and ready to pour out Easter blessings on the whole world we entered that hall of oratory, the College Dining-room, to enjoy in grateful silence the wealth of wit and learning, with which it is daily enriched. We took a seat opposite an old and valued friend, who some years ago occupied with distinction the Editorial chair. Smiling our Easter greetings we said, "And so, sir, the remains of the Britwell Library go to America. How do you regard this wholesale removal of fine old books from the country?" Such a question was designed to arouse the deepest feelings of this master of literature, and we paused in delicious anticipation of the feast of learning that would inevitably follow. With what noble resentment he would protest against the extradition of those sixteenth century tracts by Robert Wittington and John Stanbridge and how eloquently deplore the loss of "The Commendation of Cockes and Cockfighting." Breathless, we awaited his answer, and when it came, in just one single word, we denied the evidence of our ears. "Sneerer," he said, and returned to his muffin, hostile and glowering.

"You did not by any chance say 'sneerer,' did you?" we asked, for it seemed such a very irrelevant answer to our question; but he repeated the word more emphatically than before. "Yes, sneerer! Sneerer at respectability. Sneerer at hymn-singing behind closed windows. Sneerer at bowler hats and stiff collars and black jackets and striped trousers. Sneerer, and cheap-jack of meaningless philosophies. Curse you, *I* am respectable."

Here was a pretty pass, to be sure; to be suspected of sneering at so honoured a predecessor. We stared as blankly and tongue-tied as the stuffed and aged heads of big game on the wall. How could we reply? At last, recovering somewhat from the unexpected blow we asked, "Is it not possible that you may have misunderstood the trend of our short 'Passim'? That our sneers may have been regrets and our jibes the most gentle of suggestions?" But the master would have none of it "I hate your 'Passims,'" he said, "I despise the teachings of your nurse and grandmother. Who are you to indulge in empty philosophies? You are the Editor of a Hospital Journal and are expected to relate facts, like any other newspaper. Write, if you must write at all, about something concrete, like—like the Channel Tunnel"—and with this parting advice he strode magnificently from the hall.

Muffins, and more particularly College muffins, must be eaten hot, and, ours having cooled as rapidly as the master's indignation had heated, we followed him out and wandered sorrowfully through the "Park."

What a passionate world we live in, in this irritable twentieth century! Can it be the wearing effect of these passions that cause GAZETTE Editors to hold office for so short a time? It must undermine the hardiest constitution to be submitted daily to alternating moods of indignation and rage. The opening of the Editorial post must have been the occasion of daily frenzy. A valued correspondent would perhaps write that the article on the Channel Tunnel was a mixture of ignorance and misrepresentation, and the Editorial furniture would be hurled to the ground in a paroxysm of rage, and all to what purpose? Why should the correspondent not consider whatever he please about the article? No one is a penny the worse for his opinion. The master despises the teachings of our grandmother, yet this lady flourishes exceedingly. The whole situation is dependent on the modern temperament. Few Liberals can discuss Conservative views calmly, and few spectators can view a football match with unruffled feelings. A few days ago, a colleague, for whose profound learning we have the greatest respect, did us the honour of soliciting our opinion on some leading article in the *Times*. We told him, perhaps not quite truthfully, that we did not read the *Times*, and, on being asked what on earth we did read then, replied, "Pip, Squeak and Wilfred." This announcement brought forth the most embittered denouncement of our entire mode of living. As far as we remember we were totally lacking in any of the qualities that go to the making of a desirable member of the community, and, owing to our neglect of such articles as "Paris day by day," were more than a little responsible for any international ill-feeling that might exist. Our colleague even went to the extent of accusing us of being responsible for the introduction of the saxophone into England and of being in favour of sweated labour.

Steam engines and motor traffic we consider to be largely responsible for this absence of mental serenity, which will only be restored by the return of the people to the land. In the jostling, bustling, nerve-racking turmoil of a large city, tempers are roused by a single word and settle again only after a thousand, but in the country, where all is peace and tranquillity and the fire-engine never reaches the fire until it is out, even politics may be discussed dispassionately and grandmothers receive the homage due to their years. Our Editorial chair will fall vacant as soon as ever we are able to go back to the land. In the meantime we take comfort in growing oaks from acorns in medicine bottles.

WE print, in this number, the Annual Report of the Pharmaceutical Department, a report which is of interest to-day, but will be of greatly enhanced interest a hundred years hence. There is much in it that is very edifying, not the least being the announcement that while the volume of absolute alcohol used has been reduced by one-half, the consumption of soda-water has been increased by nearly five thousand syphons.

ON Thursday, May 7th, Professor J. J. Thompson, F.R.S., will deliver the first Fison Memorial Lecture in the Medical School, the subject of his lecture being "The Structure of Light." The Right Honourable The Earl of Balfour will preside and we give this early intimation knowing how many Guy's men there are, who will wish to be present.

WE offer the heartiest congratulations to P. D. B. Spence on his fine performance in appearing in three finals of the Covered Courts Championship at Queen's Club. He lost the men's singles, of which he was the holder, to S. M. Jacob after five sets, but retained the men's doubles with C. H. Kingsley, and, with Miss E. L. Colyer, won the mixed doubles. Now that the Rugby season is over and work is the only obstacle to his tennis, Spence should find even better form that he is showing at present before he appears at Wimbledon.

Notice.

The Editor, being now an old (and rather infirm) Guy's man, would esteem it a favour if all communications in future were addressed to him to the GAZETTE Office and not to the College.

Guy's Hospital Bicentenary Appeal.

The Disguysed Minstrels' Performance at Streatham.

THE total proceeds from this performance amounted to £100 5s. 6d. This excellent total, the highest but one yet recorded by the Minstrels, was only made possible by the splendid help of our ticket sellers. Foremost amongst many names of kindly helpers is Dr. Horace Richards, whose energy and enthusiasm was greatly appreciated by the Minstrels, and who perhaps more than anyone else was responsible for such a delightful audience.

Performance at the Regent Theatre.

Attention is once more called to the coming performance on Sunday, April 19th next, at the Regent Theatre.

The response up to the present has been very promising and tickets are selling well. There is, however, room for all and it is sincerely hoped that every London Guy's man and his friends will support the Minstrels on this occasion.

Objections have been received to the holding of this performance on a Sunday evening.

Everyone is naturally free to have his own opinion, but emphasis is laid upon the fact that Miss Sybil Thorndike has very kindly lent this theatre. The Conductor and Orchestra have most kindly volunteered their services to the Hospital. The Business Manager and others have also volunteered their services, and last but not least the Minstrels themselves are giving their time entirely in aid of the Appeal without any remuneration whatsoever.

Surely, where every person concerned is freely and willingly giving their services and every penny of money received for the tickets goes entirely to the Hospital, it is difficult to conceive of a higher ideal of charity.

The entire labour connected with this performance is for the cause of poverty and sickness, for the relief of pain and suffering for those who most sorely need it.

Would those who object to this performance begrudge the unhappy sufferers the relief one hopes they will quickly find in the bed the Minstrels are endeavouring to endow, merely because the means of granting this relief were obtained on a Sunday? Is not Sunday the one day more than all others when charity and thoughts for others should be uppermost? Yet such objectors have been known not to hesitate to take a tram or 'bus ride—an entirely commercial undertaking!

No, we sincerely hope that the time and labour given to this performance in the greatest cause that charity knows will be fully rewarded by the support of all.

Dance at Hastings.

A Dance with Bridge has been arranged at the Queen's Hotel, Hastings, for Friday, May 1st next, under the distinguished patronage of Lord Eustace Percy, F. P. Whitbread, Esq., Dr. John Fawcett, Sir Alfred Fripp, Mr. Montague Hopson and Mr. R. P. Rowlands.

This Dance has been organised by Mr. H. K. Banks, who is the Hon. Secretary, and several other Guy's men in the district. Tickets are 10s. 6d. each, and can be obtained from Mr. Banks, at 4, Priory Garden Villas, Cambridge Road, Hastings.

We sincerely hope that all Guy's men of that district will earnestly support this Dance which is held entirely for the Bicentenary Appeal. We wish it every possible success.

Whist Drive at Southsea.

Mr. Montague Way informs us that the proceeds of the Whist Drive, organised at Southsea by old Guy's Dental and Medical men, amounted to £23 6s. 6d. We are very grateful for this splendid support and sincerely hope other Guy's men in other districts would follow such an excellent example.

Some Practical Considerations Concerning Prostatectomy.

A Lecture delivered at Guy's Hospital on Monday, 16th March, 1925, by
A. R. THOMPSON, Ch.M., F.R.C.S.

THERE are two phrases in surgery, which are not, perhaps, very happily chosen. One is "enlarged prostate." The other, which I regret to say was mentioned in a recent surgical examination, is "senile prostate." Neither of these phrases make for exactitude or promptness in the diagnosis of a growth of the prostate. Nor do they give us much indication as to the correct treatment. They might well be expunged from the nomenclature of surgery. We do not call adenoma of the breast "enlarged breast," and we do not call carcinoma of the thyroid, "enlarged thyroid." Under the head of enlargements of the prostate there are to be considered, (1) Adenoma; (2) Carcinoma; (3) General Hyperplasia; (4) Sarcoma. Of the fibrous prostate I know nothing. I have seen two cases of sarcoma of the prostate in 14 years. It must, therefore, be rare.

As to points in diagnosis, a great many of these depend on the fact that retention is concerned. One likes to get cases of enlarged prostate before retention has occurred. The differential diagnosis of enlarged or adenomatous prostate depends to a large extent upon what is the cause of the retention of urine, and though I shall go into that this afternoon, do not think I wait for retention of urine before I diagnose adenoma of the prostate.

What causes can give rise to retention of urine? It is a very old question. Stricture may produce it; locomotor ataxy (tabes) may produce it; and spinal lesions may produce it; and another condition, which I will go into later, Bright's disease, may produce retention of urine. In all the cases in which there is retention of urine the prostate may be pushed down into the rectum, and the inexpert examiner may imagine that the prostate is enlarged when it has merely been pushed down into the rectum in that way.

I remember very well two cases of Bright's disease in which I made the diagnosis of enlarged prostate. Both those patients had retention, and in both the prostate was to be felt *per rectum*. One of them was taken into Guy's because he was very irritable, and I thought he was very ill, and no question of operation arose. We drained his bladder by catheter, and found that the urine was of very low specific gravity. In a fortnight he died. *Post-mortem*, there was found a chronic granular contracted kidney, but no growth of the prostate. I have always assumed that the urine which was coming down in that case was so dilute that it did not irritate the bladder as it should have done, and that by the time the bladder muscle was stimulated to contract it was so paralysed that retention of urine occurred.

The second of the cases I refer to occurred in 1917, and I went fully into his bladder pressure and made careful records. His prostate was prominent in the rectum, and I thought it was enlarged. On Sunday the son came to see me and asked me if I would give a certificate as his father had died suddenly in the street. I said I would give a certificate if I was allowed to make a *post-mortem* examination. I did the post-mortem in the house, and there was no enlarged prostate. That man had had an extraordinarily high blood pressure, his arteries were very sclerotic, and he died of arterio-sclerosis associated with chronic Bright's disease, which had resulted in a very dilute urine, and this had not irritated the bladder, and the bladder muscle had failed when it tried to pass the urine.

I shall not now go into the differential diagnosis of these cases, because there is not time, but you might remember that every case of retention of urine in a man over 60 is not necessarily due to enlarged prostate; also, because a prostate is enlarged you will not assume that necessarily it must at once be excised. It may be a case of general hyperplasia.

The next thing I want to go into in connection with prostates is, the local and general examination of these cases. As a rule, in cases of suspected enlarged prostate you will be careful not to pass a catheter. By the time the patient is senile and *hors de combat* you may have to pass a catheter, but, as a rule, you had better steer clear of doing that. But examine the rectum.

There are certain symptoms which are suggestive of an enlarged prostate. The first I shall go into—and this is the result of going through notes of 14 years' work—is morning dysuria. A man will frequently volunteer the statement that he cannot pass his water immediately he gets up in the morning; he has to walk about an hour or so before he can do so well. I take it that is because the patient has not got up at night to pass urine. The bladder has become, in consequence, somewhat over-full, with the result that there is considerable congestion of veins round the prostate, and, for the man's purposes, he has an enlarged prostate due to that, and this is the cause of the morning dysuria.

Then a patient will often say that when the desire to pass water arises, he cannot hold it, he has to pass it at once.

Those two signs are extremely important ones. Clearly both these are irritative symptoms, and I want to point out to you most strongly that the early symptoms of adenoma of the prostate, or of carcinoma of the prostate, are irritative symptoms in connection with the passing of water, not retention symptoms.

You will examine the rectum, and before you can diagnose these small adenomata of the prostate there are one or two things you must know about. One is, that the anal canal has a varying angle in relation to the rest of the rectum, and you may have an anal canal which is at right angles to the rest of the rectum, and the normal prostate can be felt very easily through the rectum. Or there may be a very different condition of affairs; the rectum and anal canal may be much in the same straight line, and so a big prostate may be missed when you are feeling per rectum.

The next question you will consider is this: This man has got an adenoma, or a carcinoma, of the prostate; you may not know which, because it is not easy to differentiate the two, in the early stages especially, what am I to do for him? There is one important thing you have got to do, and that is, interdict the taking of fluid after 9 o'clock at night. Of course some of you may have patients who will refuse to observe that; some of you might refuse to do it yourselves. But, as we get older and the financial purse in some cases expands, there is a tendency to go in for expensive dinners and drinks of all kinds. My advice is "Don't!" The point of that advice is, that if a man takes a lot of fluid late, his kidneys will be working all night, and hence they will not be getting the rest which they ought to have; the bladder is being filled throughout the night, there is congestion of the great veins around the prostate, and that congestion easily leads to hypertrophy of the prostate itself, resulting, perhaps, in the formation of an adenoma of it.

Then there is nocturia, that is, frequency of micturition at night. You will have noted that I have not waited for the onset of retention with overflow, which produces frequency at night: we are going into the early symptoms of prostatic trouble. Do not limit the quantity of fluid taken throughout the day; what drinks are wanted with meals the patient should take at lunch. There are three drugs which are of extraordinary value in these early cases of enlarged prostate, and which I think it is fully justifiable for you to exhibit; you will have to carefully watch when and why they should be given, because, theoretically at any rate, they are very different in their mode of action. One is Mist. Buchu of the Guy's Pharmacopœia, Tinct. hyoscyamus, potassium citrate, and Infusion of Buchu. I am not sure that the last item is not the most important. That medicine is a bladder sedative, and puts the patient into a better state of normality than you would expect. The other medicine which theoretically, would be of extreme use is tincture of digitalis and liquor strychninæ; you can make the rest up as you like, giving 2 m. three times a day. That is a very good medicine for stimulating the involuntary fibre of the bladder and aiding in the passage of residual urine, and it is the retention of a portion of the urine which is a great cause of irritability of the bladder. Think out whether in the particular case, the man wants to get his bladder muscle acting well, or whether he needs some sedative to the bladder mucous membrane. We use only very few medicines —old tried friends—in the Genito-Urinary Department here, and what we do give are carefully argued out in the case of each patient, and I hope the appropriate one is given.

With regard to the general examination, there are several points that I want to allude to. In the first place, I want to warn you against the frame of mind which leads you to say "Here is an enlarged prostate, let us have it out." In the great majority of cases you will say, "Here is an adenoma of the prostate, I am not sure whether it may not be

malignant, and I had better recommend removal." But there are certain things you must go into. You have to go over the condition of the whole body before you decide that prostatectomy should be performed; you must investigate the arteries for evidence of arterio-sclerosis, or calcification of arteries, or high blood pressure. Also go into the general appearance of the man. And one of the most important points you will go into in relation to the general history is, What sort of a life has he led before? If he has been exposed to all kinds of weather, if he has had to live a very hard life, working 12 or 14 hours a day, I should say that by the age of 60 he is about worn out, and in such cases you will be very cautious about recommending prostatectomy. The urine may be free of albumen, it may contain only the normal amount of urea, but even so you will undertake a serious responsibility if you recommend that such a man shall have prostatectomy done.

The patient's general appearance is very important. If the man looks dried up and has atrophied nails, and as he lies in bed his scrotum is dependent, and he has a very dry, inelastic skin, and he himself does not seem to care whether he lives or dies after the operation, do not advise or do the operation. If the patient is fresh-faced and anxious for the operation, you can go ahead with it with a lighter heart than you otherwise could. But there are a certain number of patients anxious for the operation, but with whom you must go slow. Ten days ago a man turned up at out-patients, aged 59, with retention of urine, which he had had only for a fortnight, and which had been relieved by a catheter. He was caused considerable inconvenience and pain by the retention. I examined the rectum when the bladder was empty, and found the prostate was adenomatous, and I told the man he had better have an operation done, and not wait until the prostate got larger. Being a sensible man, he quickly saw the force of the suggestion. But I told him not to decide and answer in a hurry, but to come back and tell me later. Four days had not made him change his mind. I admitted him, and I found he was passing bloody urine, and there was some pus in the urine. The prostate did not look like the prostate which was enlarged by adenoma; the type of enlarged prostate he had was more that which we associate with general hyperplasia. Therefore I went into certain things which are important. First, I drew off all his water, which was 29 ozs., not an excessive amount in these cases. We analysed this, and found that there were about 8 grammes of urea in the 29 ozs. Perhaps it was slightly diminished. You must in calculating the urea, always take a whole sample, that is, the quantity passed in a day. I still believe that to be a useful thing. You can, if you like, do a urea-concentration test; it may not be easy to do, because the patient may not pass all his water, and the use of a catheter may upset the dilution of the renal secretion very much. Mr. Nitch speaks highly of the urea concentration test at St. Thomas's. The estimation of the quantity of urea in the blood, as practised by Dr. Ryffel for many years, is a most valuable test. But you will not put these laboratory tests in front of, or regard them as more valuable than, your clinical experience. This man had only 1 in 1,000 albumen, and that might have been explained by the blood in the urine, *plus* the pus in the urine. But there was albumen; the urea was slightly diminished, and, though the man looked healthy, I did not altogether like his appearance.

The first thing he volunteered was, that he was very thirsty, and that may have been due to the fact that he had deliberately refrained from taking drink because he was anxious not to overload his bladder. Another thing he told us was that he had gone off his food; his appetite was bad, especially for meat. These are very important points to bear in mind.

I thought about the matter, and decided I would cut down on him and if the enlargement of the prostate seemed to be easily removable, I would remove it; but if the operation was likely to hitch up in any way, or there was likely to be much bleeding, I would not do it; not because I thought the prostate was a difficult one to remove, but because this was an abnormal prostate altogether, and I thought it might be malignant. If it is malignant, my experience is that ascending nephritis is more commonly present than not, and so we decided to wait another fortnight so as to give the kidneys a chance to recover their function.

That is an example of getting a case early, finding the condition worse than we thought, and going cautiously in regard to operation.

And now we come to a very important point: I do not know that I should have thought it very important a year ago, but I do now. It is, What operation will you do? Will you

do the supra-pubic operation—an operation which has caused a great deal of excitement, as to whether it is Magill's or Freyer's? I have read many of the old books on surgery, and I am satisfied that adenomata of the prostate often removed by the old surgeons before Macgill or Freyer were thought of. We will call it the supra-pubic operation. At one time I thought that was the only operation available for these cases. But in the last year I have been more frequently doing perineal removal of the prostate. And I am very much impressed about two things in connection with this route. The first and far the most important is the almost complete absence of shock. The second is, that I think, on the whole, perineal prostatectomy can be done much more quickly than the suprapubic operation, which of course is a point of some importance, I do not say that a quick operation is, in certain people's hands, a very desirable thing, but if an operation can be done quickly, it is probably more likely to be successful than an operation done much more leisurely, especially if the patient is bleeding badly through the course of the operation.

It is very important to realise in the supra-pubic operation, especially in connection with the question of shock, that the mucous membrane of the bladder, its sensory area, must be stimulated twice: first when it is cut through suprapubically, and second, when it is cut through to get the adenoma out by the base of the bladder.

And there are other points which you must consider in the after-treatment of supra-pubic prostatectomies. If you wish to pass a catheter after the operation, you are passing it for a very definite purpose, you are passing it so that the patient may drain away through the catheter, so that there may be a chance of the supra-pubic wound healing up properly.

That brings me to speaking of a very important point. The management of the tube is the most important thing in the after-treatment. And the matter which comes next in importance is to pay attention to the scrotum and the testicles, instructing sisters and nurses and the patient himself that the testicles and scrotum must be kept up. If you do not keep them up, there will be trouble in the shape of orchitis, and the danger of orchitis is that you may not realise its existence; the patient may have no pain, and all he may have as an accompaniment of orchitis is an increase of temperature. Therefore if you are faced with a post-prostatectomy temperature, always think of the possibility of orchitis, and direct your attention accordingly.

The management of the drainage tube is a very important matter after supra-pubic prostatectomy. I think it ought to be put into the small cavity left after the removal of the growth of the prostate, and for this purpose it should always be placed obliquely downwards and forwards. But there is another reason for the direction of the tube, and it is this. Such a position of the tube keeps the upper surface of the bladder from projecting into the wound and eventually forming a valve which blocks the supra-pubic orifice, and may lead to the idea that the wound is drying up nicely, when, in fact the rugose mucosa of the bladder is closing the wound.

A great number of patients do remarkably well after the operation from the point of view of happiness and life and the passing of their water properly. But there are a certain number who, owing to a bad state of the kidneys, but also to bad dressing after the operation, die. And I am bound to say there are certain disasters which may occur. For example, a fatal bleeding may be set up. In the last 14 years, since I started doing prostatectomies at Guy's, I have had only one case in which the patient died of hæmorrhage afterwards: I have had good dressers who were able to stop hæmorrhage when it occurred. But you need to be very alert on this matter. My rule—and a very sound rule it is—for two days after prostatectomy, whether it be a hospital case or a private one, stand by in case you are called to an emergency bleeding. I do not mean by that, that you are to be constantly at the patient's bedside; but arrange that you can be quickly summoned to stop any bleeding. Valuable lives have been lost because surgeons have not taken care to remain within easy call for two or three days after doing the operation.

And there is a danger which is due simply to bad dressing, and I do not hold the surgeon liable for that. The danger is in the nasty sloughy condition in which the wound is apt to get when there is a careless or inefficient dresser. You may be pretty certain the patient is going to die if you allow the wound to become septic or sloughy; or at any rate he will be in the hospital three or four months.

How can we prevent these wounds going septic? The great thing is to try and establish

drainage of such a nature that it flows away from the wound.

That brings me to the point with which I shall end this lecture; it is a digression about the supra-pubic operation. What is the great disadvantage of the supra-pubic operation? Drainage of it is against gravity; that is why I have adopted in some cases the perineal route. If you are asked to discuss the merits of the operations, you will say that the supra-pubic operation does at all events break one of the canons of physics; you cannot drain efficiently against gravity, unless you syphon, and if you syphon, the mucous membrane may be drawn into the channel and block it. The indications for the perineal operation are a different matter, and must occupy us at another lecture.

Dental Notes.

The Oberlander Gum Enamelling Process.

Paper read by Mr. R. D. GAIN before the Dental Society, March 17th, 1925.

I DESIRE, this evening, to lay before you the claims of Dr. Oberlander's gum enamelling process, which represents, in my humble opinion, the greatest advance made in prosthetic dentistry during many years. Dr. Oberlander claims for his process that it ought entirely to supersede the use of pink rubber representing gum, on vulcanite or metal dentures. I have become so enthusiastic over this process that I feel that he has not stated his case half strongly enough, and although I have had but little practical experience of the working of the enamel, and must speak accordingly, more as a spectator, yet I feel that he would not have exaggerated his claims at all if he had said that it would also displace continuous gum work, and with that I include gum section work, from its position of pre-eminence in the curriculum of the prosthetist.

I know that I am laying myself open to a great deal of criticism in tackling a subject such as this, with so little working knowledge, but I have been so impressed by the finished work, and also the ease with which skilled mechanics can perform the work, that I feel that it will be possible to convert my critics to my own views before this evening is over.

The finished enamel is, I maintain, quite equal to porcelain continuous-gum work in appearances, while it also has the valuable properties of extreme lightness and ease of manipulation, neither of which can be applied to porcelain.

I do not know whether any of you have ever had any practical experience with continuous gum work. Personally, I have not, and can therefore only lay before you the views of one or two friends whom I know, who have used it, together with the opinions put forward, in the various text books on Mechanics obtainable in the library here. Naturally, the literature on the subject does its best to impress the reader that continuous gum work is the method "par excellence" for a denture facing, but those friends, who have tried it, have all said that they personally have had but little success, owing to the many difficulties which confront the mechanic. Nevertheless they all agree that a properly finished denture with continuous gum work is an exceedingly fine looking article, and I know that those of you who have seen such a denture will readily agree that these opinions are not incorrect.

May I quote a passage from Turner's Prosthetic Dentistry, published in 1920. It reads as follows:—

"If it be agreed that, besides the restoration of function, one of the chief desiderata in the construction of an artificial denture is the imitation of the natural appearance of the teeth and *gums*, then it may be said that the continuous gum process offers greater æsthetic value than those of any other method of prosthetic restoration."

When, in 1923, Dr. Oberlander invented his process, that statement became obsolete.

In another passage in Turner we read:—

"The objections formerly urged against this variety of artificial denture, to wit, its great weight, and the dangers and difficulties in the baking of porcelain, have been removed, to a large extent by improved methods of construction." I read through that chapter two or three times, but I could find very little to counteract those objections, while one or two added difficulties came to light.

Then, if we turn to one of the most recent publications on mechanics, Thomas Goodhugh's Prosthetic Dentistry, published in the summer of 1924, we find included in his excellent chapters on Porcelain work, the following passage:—

(Page 277.) "Continuous Gum work, which was carried out during the last century, has demonstrated the beauty and success of porcelain for this work, *when used on pure platinum*. The labour which is entailed, added to the present day costliness of the metal, does not favour its use for anything but rare and exceptional cases."

Thus we see that both English and American writers, who are writing to persuade the profession to adopt, once more, an art which has passed out of vogue, have to admit that that passing has been entirely due to the almost insurmountable difficulties which are encountered in the essaying of that art.

So much for the written side of the subject. The verbal information I have obtained is, perhaps, more enlightening on the position of the average mechanic and practitioner. One of our mechanics here, at Guy's, says that a full denture with continuous gum work is, for a proficient mechanic, one whole day's work, and that this work cannot possibly be conducted in the average dental laboratory, owing to the dust-laden atmosphere, dust spelling certain ruin to unbaked porcelain. Also, unless there is a large amount of undercut around the alveolar margin, it will be almost impossible for the patient to retain such a denture in position, owing to its great weight.

As most of the evidence tends to prove that porcelain work is, owing to its expense and difficult technique, relegated to those other processes which have proved impracticable, in spite of its so fine appearance, so, also, does evidence point to Oberlander's enamel as the only substance able to replace it, without losing any of its delicate shades or sheen, but also combining the additional advantages of lightness, ease of manipulation, and last, but not least, low cost.

There are two processes which one may adopt when using the enamel, known respectively as the "*modelling*" process, in which the enamel is merely used as a gum facing, in the same manner that porcelain is used in continuous gum work, except that it is used upon vulcanite, and the "pressing" process, in which the whole of the denture is constructed in the enamel; and as the enamel is prepared in one way only, no matter which process is used, perhaps it will be best if I describe the preparation to you now. As, also, the success of the whole process depends almost entirely upon the correct mixing, I am dealing with it in some detail.

The enamel has many of the properties possessed by the synthetic cements. It is supplied in tubes, very much like tubes of oil-paint, together with a bottle of liquid. These tubes contain a substance not unlike a thick gum in consistency, and they can be obtained in almost any colour that is desired. As, however, the only colour that the dental-surgeon is likely to require is gum pink, an outfit of three tubes of dark, medium and light pink should enable him to obtain, by a careful blending of these tints, the most delicate shade that he can need.

Mixing.—The enamel is mixed with the liquid, in definite quantities, one gramme of the enamel to two drops of liquid, and if these quantities are strictly adhered to, there is not much possibility of the resulting mixture being too hard to manipulate properly on one occasion, and so soft that its flow renders it unworkable, on the next. I believe that the number of drops of liquid to be used with one gramme of the enamel has been varied in some of the more recent tubes, but such variation has always been printed upon the tubes. The enamel is squeezed out into a weighed porcelain bowl, and by using a simple balance the necessary weight can be accurately determined. (I will discuss the amounts to be used at a later stage). The liquid is then added, drop by drop, up to the required number of drops, from a small pipette. Incidentally, unless the pipette is held quite erect, there will be a variation in the size of the drops, with a consequent "thinness" of the mix.

Immediately the first few drops of liquid have been added, mixing is started, slowly, with the aid of an agate spatula, and is continued until the mixture becomes much thicker and assumes the appearance of "crushed strawberries and cream." When this stage is reached the porcelain dish is placed upon a fireclay or metal slab, over a bunsen, and is gently heated until it commences to simmer. I wish to emphasise that word "simmer," because it is important that it should not boil furiously, or, what would be far worse, commence to burn. Thus, when this condition has been attained, the dish should be moved to the edge of the slab, so that it may be maintained at its

boiling point, without becoming overheated. Once the substance has begun to boil it begins to assume a much thicker consistency, and it must now be watched very carefully, while it is spatulated gently towards the centre of the vessel, until it *approaches* a thickness compared by Dr. Oberlander to a "caramel paste." For the benefit of those gentlemen whose culinary instincts are, like mine, entirely in the embryonic stage, there is a simple, but nevertheless certain, test, which one applies to the mixture to ascertain whether this consistency has been reached.

A column of the enamel is levered upwards with the spatula, and if there is any visible downward flow, then the mix is not ready, and spatulation must be continued until no flow can be seen. However, as it is equally as important that the mixture should be applied as soon as it is ready, the test should be made at frequent intervals.

The attainment of a mix of correct consistency demands a fair amount of experience, and at first much difficulty may be encountered, but after the first few attempts one should find it fairly easy to arrive at, providing the rules governing the mix are strictly adhered to. However, one can never afford to become slack in the preparation of the enamel.

Modelling Process.—We will now leave the enamel for a while, and deal with the method of preparation of the denture which is to be faced with enamel; that is, by the "modelling" process.

The denture is made in vulcanite in the normal manner, except that the vulcanite around the front of the mouth representing gum is left in a very thin condition, so that when the enamel is applied it will give the required thickness of gum. Then, with a large bur, rough the surface which is to be treated, so as to give some slight hold for the enamel. However, owing to its extremely adhesive nature, it does not require any undercuts to hold it in position. For a denture that has been in use it is only necessary to remove most of the gum pink, leaving, if it is so wished, a somewhat pronounced suggestion of contouring around the necks of the teeth. A plaster model of the denture is then poured, and at the same time an overbite, so that only the buccal or labial aspects of the teeth, together with the prepared vulcanite surface, are exposed. The dentures are then placed upon the fire-clay slab, on which the enamel is prepared, and are allowed to heat up slowly to a temperature of 60°C. That is, when the model is just bearable to the hand. To ensure that the heating of the denture is uniform, it is turned and reversed from time to time.

The reasons for thus heating the denture are :—

(i.) To drive out superfluous moisture from the plaster; and

(ii.) To ensure that the denture does not cool the enamelling substance when it is applied, as any lowering of the temperature will make it too hard to work properly.

While the denture is heating up, the enamel can be prepared, so that both are ready at the same time.

Applying the Enamel.—When one is fully satisfied that the enamel is ready to apply, it is gathered into a mass in the middle of the dish, and is removed with the spatula. Then, holding the denture in the left hand, with the teeth pointing towards you, gently press the enamel on to the left side of the denture, at the limit to which it is to reach. It is next drawn slowly out, spreading it over the gum, until it reaches the limit on the right side of the denture, where it is pressed on; and any surplus material attached to the spatula is removed with a slight outward jerk.

This spare enamel must not be dragged away in a long thread, as this renders it apt to become disintegrated, and the final product will not be of correct consistency.

Then gently mould the facing around the gum surface and necks of the teeth, with the fingers, although, of course, one should avoid handling the material more than is necessary.

Naturally, during all operations, when one is likely to handle the uncooked enamel at all, the hands should be scrupulously clean.

The enamel is now moulded into the desired contours, using one or two very simple instruments. Using a broad pointed instrument, such as is used mostly, I believe, for packing rubber, the enamel can be introduced between the necks of the teeth, while with the type of manicure instrument in most common use, one can reproduce almost any type of festoon, and the pointed end of the instrument can be used to push off any surplus material from around the cervical margins.

This moulding is rendered possible by the heat which is retained by the plaster investment and vulcanite, and which keeps the material plastic for some ten to fifteen minutes.

As the denture is stoved at this stage it is advisable to manipulate the enamel to such

an extent that on completion of the stoving process there is the minimum amount of trimming up to do before the denture is ready for insertion in the mouth. The contouring should, however, be somewhat exaggerated.

The stoving process converts the substance from a state of crystallisation into an enamel, and it merely means that the prepared denture is cooked under a pressure of four atmospheres at 70°C. for about 45 minutes. A slight variation in any of these three particulars does not have any appreciable result upon the finished product, but those are, roughly, the optimum figures. The pressure is the item which causes the conversion into the enamel, and CO_2 is the gas which is used to obtain that pressure, as that has been found to give better results than air or any other of the easily obtainable gases. However, CO_2 is not essential for the action to take place.

While the stove is being prepared the denture can be left in a cool place, somewhere where it is not likely to become covered with the dust and debris which are floating about in the average dental laboratory; but the excessive precautions which one associates with porcelain work are entirely unnecessary.

The Stove.—The stove for heating the denture is merely a hollow copper cylinder, containing stands to hold the prepared dentures in position, and fitted with an inlet tube with a pressure gauge so that the required pressure may be read off, and maintained. There is also a thermometer. The whole thing is mounted upon a stand, so that it can easily be rotated over the bunsens which keep it at the required temperature.

I fear that my descriptive powers are very weak, and will convey very little to you. I have got here a stoving apparatus which Mr. Kelsey Fry has been kind enough to lend us, and I think you can fit my description to the apparatus.

The denture is placed in the stand, well in the centre of the platform, with the teeth pointing downwards, that is, towards the platform. As the enamel is likely to flow very slightly when it is first heated up, it is best to arrange that such flow should tend towards the teeth, and not away from them. Accordingly, careful note should be taken of the position of the denture in relation to the handle before the stove is finally closed.

The denture properly in position, the cover is screwed on, after a preliminary greasing with vaseline, and CO_2 is allowed to pass into the apparatus. The reducing valve on the cylinder prevents any further inflow of gas after the necessary four atmospheres have been reached. Also, one can tell by the hiss of the inflowing gas whether the cylinder is filling properly, or whether the CO_2 is escaping somewhere. The pressure arrived at and taps all turned off, the CO_2 cylinder can be disconnected from the apparatus and the heating started. The bunsens are turned full on until the temperature, as indicated by the thermometer, reaches 40°C., when the gas is lowered, so that the flames are not more than one inch high, and these flames should carry the temperature up to 70°C. During the whole while that this heating is going on, the handle, which revolves the cylinder, and in it, the dentures, should be slowly turned, at a rate of about 10 revolutions per minute, and this turning should be continued for about five minutes after the 70°C. has been registered. This ensures that the dentures become evenly heated while they are in the early stages.

The important thing about the revolutions of the handle is that the dentures should finally rest in a horizontal and not a vertical position.

The heating process is carried on for 45 minutes, or possibly one hour, for, if more than one denture is being stoved at one time, and it is to be expected that this will prove to be the rule rather than the exception, then, slightly more time is needed. There is no reason why the plates should not be inspected after three-quarters of an hour, and then, if it is considered necessary they may be given a few extra minutes. Such a procedure will have no injurious effects upon the enamel.

Each time that the stove has to be opened, the gas must, first of all, be turned off, and then the CO_2 allowed to exhaust, before any of the screws are loosened.

When the dentures are considered to be sufficiently baked, and here experience is the best guide, the plaster is cut off and they should be practically ready for insertion in the mouth. Any superfluous material is removed, either with a file, for the enamel can be filed if necessary, or what is, perhaps, safer, with a small stone. One of the long narrow Miller's points to go between the teeth, and a sharp pointed instrument to finish off the cervical margins, complete the instrumentarium. The superfluous is removed, and the denture only needs polishing around the necks

of the teeth and the sulcal margin, in exactly the same way that one would polish any ordinary vulcanite denture, using pumice and then whitening, after a preliminary thorough sandpapering. However, there should not be any trimming up to do if the denture was properly prepared, for polishing or stoning the enamel removes from it the lustrous sheen which makes it appear so natural in the mouth, and which no subsequent treatment can bring this back.

The finished denture, then, consists of an ordinary vulcanite base plate, but with a gum-facing resembling the finest porcelain work. Such a denture costs very little more than an ordinary vulcanite plate, especially when one considers that there is a great saving on the use of pink rubber, and the extra time expended on it should not exceed two hours at the very most.

Dentures which have been enamel faced, and owing to some slight mishap, stand in need of repair, are easily put in order once more. If it is a slight crack, extending through the gum up to the teeth, after the model has been poured, one simply proceeds as with a vulcanite repair. The crack is burred out, and is dovetailed in the ordinary manner. Then it is packed while the enamel is very plastic, and is stoved as in the normal manner. Naturally one chooses a slightly lighter colour than the denture, as the old enamel will bleach a trifle during reheating.

If, however, the fracture is much larger, and it becomes necessary to repair the denture with vulcanite, then one must stone off the old facing and entirely reface it, after the rubber has been vulcanised, as, during the extreme heat necessary to vulcanise the rubber, the facing becomes bleached. As, however, quite large repairs can be entirely done with enamel, and they are found to be quite as strong as if repaired with vulcanite, there will rarely be need for this drastic operation.

I have purposely omitted to go to any great detail over the method of screwing up the stove or of filling it with CO_2, for these details, although obviously essential to the mechanic who does the work, would only prove tedious and unnecessary, in a paper.

Pressing Process.—Some few months after the discovery of this method, Dr. Oberlander brought forward a process, whereby the complete denture base can be formed in the enamel. The teeth are set up in wax, and are tried in the normal manner; in fact, one proceeds exactly as one would if the denture was to be made in vulcanite. The plates are, however, invested in a mixture of plaster and pumice, or what is considerably better, in the No. 1 investment material, which we use for inlay work. Full lowers are invested upside down. The wax is boiled out, and the flask is placed in a furnace to heat up, to remove excess moisture, and keep up a sufficiently high temperature to render the enamel very plastic.

It is in the packing that one realises another of the tremendous improvements of this enamel over other materials, for "packing" in the sense that one means when referring to vulcanite work, is entirely eliminated. For a full upper denture it is only necessary to take two lumps of the material; one is rolled out to the shape of a thick cigarette, and is laid gently around the ridge, behind the teeth; the other is placed in a ball in the centre of the palate, and the counter is placed in position. The two halves are then *slowly* squeezed together, in an ordinary flask press, and the case is packed. Vents for surplus material are said to be unnecessary, but as it is perfectly permissible to use them if one so wishes, I, personally, would feel far safer to have them there. A small piece of wire is twisted round the packed denture to prevent anyone inadvertently opening it, and the case is ready to be cooked. That was the old method. Dr. Oberlander has attempted to improve this process by making a slight alteration, but from what I have heard, I imagine that the improvement hardly justifies the extra trouble. His flask lid has four holes, about a quarter of an inch in diameter bored in it; otherwise the apparatus is exactly the same. The waxed-up case is invested quite normally in the lower side of the flask. Then a thick wax sprue is fixed to the denture in such a position that it projects through one of the holes, and with this in position a counter is poured. When it has set thoroughly the sprue is boiled out, and the flask opened, when all of the wax can be got rid of. The flask is then heated up, and packed, as I have previously described. When the flask is closed the surplus flows out into the sprue hole, which acts as a vent. The flask being properly packed, by either method, it is placed inside a gun-metal shell, which has, fixed to its lid, a reducing valve. CO_2 is passed into it up to the pressure required, four atmospheres, via the valve, and the taps are turned off. This outer flask is then placed inside a boiler, in every respect similar to a dental vulcaniser, save that it is regulated

by a thermometer, and not a pressure gauge. In fact, one can use a vulcaniser if a thermometer is put into the hole which every vulcaniser has to receive it. The pressure gauge is, however, quite useless, for one must know the temperature of the water, and not the pressure, inside the apparatus.

The reasons for cooking in CO_2 and not in water are:—

1. The CO_2 pressure is constant, as is also its temperature, whereas that of the water varies considerably at different depths in the water, and at different times.

2. It is not desirable to let the water come into contact with the investment material, or what is more important still, with the uncooked enamel; and

3. By the latter process the CO_2 comes into direct contact with the enamel, via the sprue hole, just as it does in the "modelling" process, and this is said to give better results.

As I have mentioned before, I am rather sceptical about the improvements it is said to bring. However, there is no reason why this method should not be well tried, for that is the only way that will lead to any improvements.

The boiler containing the flasks is filled with water, and the lid is gently screwed down. The bunsens are lit, and the temperature rapidly runs up to 100°C., when the flame should be turned down until it only just touches the bottom of the boiler, and this flame should suffice to raise the temperature to 110°C. and maintain it there for 50 minutes to one hour. Then the gas is turned out, and the temperature allowed to fall to 90°C., when the boiler may be opened, and the flask taken out. The outer flask is left until one is able to hold it comfortably in the hand, when the CO_2 is allowed to exhaust, and the flask opened. The inner flask is removed and quickly cooled in water, when it may be opened, and the investment will be found to break away quite easily from the denture. Then with stones and points the denture is filed up, and after being polished thoroughly, just as one would polish a vulcanite case, it is ready for insertion in the mouth.

The only drawback which I have been able to find with this process is that the rubber discs which one uses upon the lids of the outer flask, to prevent any escape of CO_2, are apt to become vulcanised, and so perished, but they are not expensive, and it pays to be fairly prodigal with them.

In conclusion, there are one or two details which I have omitted to mention, but which are of paramount importance.

Firstly, the weights of material to be used. For a denture facing it is usual to allow 7 grammes of material, although one would naturally allow proportionately less for a small or partial denture. For a full denture of normal size, by the pressing process, one allows 35 grammes, while for the very largest denture one is never likely to need more than 40 grammes. One tube of material should furnish sufficient for 7 facings.

Incidentally, as a matter of comparison, I found that the average weight of a number of full vulcanite dentures was 112 grammes, so that we see that an all enamel denture is about $\frac{1}{3}$—$\frac{1}{4}$ as heavy as a vulcanite denture. This is one of the finest properties of the enamel.

Secondly, metal strengtheners can be introduced if they are necessary, but as the enamel is remarkably strong they are rarely likely to be used, except by practitioners who use them as a matter of course. Bands and wires can be used quite in the ordinary way, and are, at least as safe in the enamel as they are in vulcanite, so that no particularly large or strong tags are required.

Thirdly, for those who care to do so, polishing plates can be freely used, in the complete enamel dentures, and such a denture with rugæ and lingual contour work looks extremely fine. As the metal does very slightly affect the colour of the enamel (it turns it a trifle light), it may be suggested that they should not be used, but as such bleaching is entirely confined to the palate I feel that they are perfectly justifiable. In any case, it is entirely a matter of choice.

To sum up, the enamel possesses the following properties:—

1. For colour and translucency it equals porcelain work.

2. In weight it is considerably lighter than ordinary vulcanite work.

3. It is, with reasonable care, easily manipulated; the most difficult operation being the initial stage, that of mixing the enamel, and here experience is the best and only guide.

4. It can be applied to almost any case, whether of vulcanite or metal.

5. It is stronger than vulcanite, although slightly more brittle; and

6. Its low cost places it within the reach of almost anyone.

Report of the Dispensary Department for 1924.

Payments by Out-Patients.—It will be noted that the percentage of Out-Patients, who pay the nominal sum of 6d. per week for their medicines, has decreased from 90 per cent. in 1923 to 88·12 per cent. in 1924. It is considered that this is largely due to the increasing number of Out-Patients who are members of the Hospital Saving Association.

Rebate on Alcohol.—The amount claimed for the year was £648 7s., of which £125 3s. 10d. was not received until 1925 and will appear in this year's accounts.

Surgical Dressings.—In nearly every instance these again show an increase in consumption and cost. The Annual General Summary of Dressings supplied to the Wards is as follows—

1923	...	£3,465 5s. 8d.
1924	...	£4,058 10s. 7d.

Oxygen.—The British Oxygen Company notify a reduction in the price of oxygen, and in addition there is now no charge for delivery. It is hoped that this will effect a considerable saving in this direction.

Olive Oil.—The larger purchases of this is due principally to the more extended prescribing of the "sublime" variety for internal administration. In addition it has been found more economical to purchase "Commercial" Olive Oil for external use in place of Sesame Oil.

Insulin.—The reduction in price of this substance is shown by the greatly decreased expenditure for practically the same number of doses.

Pharmaceutical Laboratory.—The increased number of Dispensary Attendances is reflected in the larger amount of preparations made in the Department. As a matter of interest, Mixtures and Emulsions include 160 gallons of Cod Liver Oil Emulsion, 260 gallons of Petroleum Emulsion and 112 gallons of Magnesia Emulsion, B.P.C.

Tinctures and Liquid Extracts include Tincture of Belladonna, 12 gallons; Tincture of Hyoscyamus, 24 gallons; Tincture of Digitalis, 8 gallons; Liquid Extract of Ergot, 28 gallons. Infusion of Buchu, 323 gallons, gives some idea of the extent to which Compound Buchu Mixture is prescribed.

Tablets.—The following may be of interest. The Tablet Machine was fixed in the Dispensary in 1906, and I think I am correct in saying that, beyond dies, screws and other small repairs, has been in continual use ever since. Early in 1924 instructions were received for the machine to be thoroughly overhauled by the makers; this was done at a cost of about £45 and it is hoped that the machine will still run for a number of years.

Dispensary Staff.—Mr. Thompson, 2nd Dispenser, who had been in the service of the Hospital since 1905, was granted leave of absence for 12 months in order that he might assist at the Ministry of Health; no information has yet been received whether the post is permanent. I again acknowledge the willing service of all concerned in the working of the Department, but it is desired to bring to your notice that for some time past it has become increasingly evident that the present Staff cannot cope with the work in a really satisfactory manner.

The present Staff of a Pharmacist and five Assistants was sanctioned in 1919, since when there has been a continual increase in Dispensary Attendances from the Out-Patient Department.

1919	178,823	Dispensary Attendances.
1920	192,037	,, ,,
1921	204,732	,, ,,
1922	195,573	,, ,,
1923	214,389	,, ,,
1924	223,875	,, ,,

and in January and February this year the increase has been 1,805, compared with the same months of 1924.

For your information I quote the following figures for pre-war years:—

1910	221,847	Dispensary Attendances.
1911	220,591	,, ,,
1912	197,557	,, ,,
1913	188,238	,, ,,
1914	176,973	,, ,,

when the Staff consisted of a Pharmacist in charge and six Assistants.

There are also larger demands from the Special Departments of the Hospital and Medical School, and I am pleased to say that the Department is frequently used for the purpose of reference. It is frequently necessary to postpone some Ward work, especially the replenishing of Hypodermic Injections and Dan-

gerous Drugs, until the afternoon owing to the pressure of Out-Patient work.

ATTENDANCES.

The total number of Out-Patient attendances at the Dispensary during 1924 was 223,875, against 214,389 in 1923, and 195,573 in 1922.

These are classified for the last two years in the Table below, by which it is calculated that 88·12 per cent. of the Out-Patients paid a nominal sum of 6d. per week for their medicine in 1924, compared with 90 per cent. in 1923.

	Number of Dispensary Attendances.			
1924	Medical.	Surgical.	Casual.	Total.
Paying	109,561	42,300	45,430	197,291
Free	10,798	5,070	10,716	26,584
	120,359	47,370	56,146	223,875
1923.				
Paying	103,443	42,165	47,124	192,732
Free	7,695	4,047	9,915	21,657
	111,138	46,212	57,039	214,389

The receipts have been as follows :—

	1924.	1923.
	£ s. d.	£ s. d.
Out-Patients	4,912 7 5	4,823 8 0
Sale of Drugs	273 2 5	296 1 5
Net profit on the sale of Bottles to Out-Patients	212 16 0	193 17 0
Goods supplied to the Medical School	183 12 7	215 11 3
Goods supplied to the Dental School	169 3 3	221 16 1
Medicines and Dressings supplied to the Nursing and Domestic Staff	68 5 9	41 11 1
Goods supplied to the Salomons Centre	15 4 0	17 2 3
Goods supplied to the Day Nursery	6 1 6	7 0 9
Salvarsan Substitutes supplied to Outside Practitioners	127 4 1	158 11 1
Ashton Parsons Research Fund	—	121 5 0
Rebate on Alcohol	523 3 2	556 6 11
Amount received from the Medical Research Council for supplies to Oxygen Chamber	53 6 9	103 7 8
	£6,544 6 11	£6,755 18 6

Goods have been supplied as follows to:—

	£ s. d.	£ s. d.
Surgical Skiagraphic Department	37 0 4	33 1 9
Medical Skiagraphic Department	69 7 1	64 9 4
Actinotherapeutic Department	51 17 7	48 6 7
Deep Therapy Department	1 8 10	2 13 7
Photographic Studio	8 16 2	11 3 9
Massage Department	4 3 9	4 0 3
Sterilising Department	5 10 8	7 10 0
Works Department	14 12 5	16 4 4
Post-Mortem Room	4 1 10	5 13 7
Clinical Chemistry Department	23 17 11	23 18 11
Morbid Histology Department	5 4 9	16 12 9
Bacteriological Department	22 13 8	18 18 1
Orthopædic Workshop	27 13 6	24 0 11
Laundry	1 5 4	1 6 11
Midwifery Department	41 12 2	40 0 3
	£319 6 0	£318 1 0

Anæsthetics.

	Quantity Purchased. 1924.	Quantity Purchased. 1923.	Cost. 1924. £ s. d.	Cost. 1923. £ s. d.
Chloroform	7 cwt.	896 lbs.	74 13 4	90 10 8
Cocaine and Salts	12 ozs.	12½ ozs.	12 5 4	10 18 6
Ether	33 cwt.	38 cwt.	367 7 4	371 9 4
Nitrous Oxide Gas	92,800 gals.	97,700 gals.	244 4 6	291 9 0
Novocaine	28 ozs.	16 oz.	58 18 0	34 0 0
			£757 8 6	£798 7 6

Antiseptics.

	Quantity Purchased. 1924.	Quantity Purchased. 1923.	Cost. 1924. £ s. d.	Cost. 1923. £ s. d.
Acid Boric	16¼ cwt.	15 cwt.	41 13 6	43 19 8
Acid Carbolic	13 cwt.	13 cwt.	45 7 8	76 6 0
Formaldehyde	1039 lbs.	1017 lbs.	30 19 5	40 14 8
Iodoform	11 lbs.	15 lbs.	11 19 3	16 10 0
Hydrogen Peroxide	350 gals.	415 gals.	52 10 0	72 0 0
Iodine	21 lbs.	19 lbs.	20 6 7	18 4 10
Cresol	1387½ gals.	1276¾ gals.	189 13 9	168 11 7
			£392 10 2	£436 6 9

Sera.

	1924. £ s. d.	1923. £ s. d.
Anti-Anthrax	17 15 6	20 8 7
Anti-Diphtheria	104 2 0	57 0 0
Anti-Dysentery	45 0 0	27 0 0
Anti-Meningococcus	9 0 0	24 0 0
Anti-Tetanus	83 6 0	50 12 0
Anti-Streptococcus	152 18 0	126 10 4
Anti-Colon Bacillus	11 18 0	—
Anti-Staphylococcus	3 11 7	—
Anti-pheumococcus	17 10 0	—
Normal Horse	2 14 0	0 9 0
	£447 15 1	£305 19 11

*Salvarsan Substitutes.

	Doses. 1924.	Doses. 1923.	Cost. 1924.	Cost. 1923.
Arsenobillon	3 doses	12 doses	0 9 0	1 16 0
Arseno-Argenticum	30 doses	858 doses	6 0 0	160 16 0
Galyl	606 doses	667 doses	125 4 0	177 14 3
Intramine	34 sets	39 sets	12 15 0	14 12 6
Neo-Trepol	134 boxes	73 boxes	124 17 4	56 7 1
Novarsenobillon	1790 doses	2000 doses	259 17 6	278 0 0
Silber-Salvarsan	—	202 doses	—	33 4 0
Spirillan	936 doses	144 doses	58 10 0	9 0 0
Stabilarsan	1340 doses	826 doses	199 19 6	121 14 9

*Including substitutes to the amount of £127 4s. 1d. supplied to outside practitioners.

	Doses.		Cost.	
	1924.	1923.	£ s. d.	£ s. d.
Sulfarsenol	585 doses	505 doses	54 14 11	36 19 11
Sulfoxyl Salvarsan	237 doses	—	41 12 6	—
Lunosol	48 oz.	—	15 18 0	—
Bismostab	80 ampls.	—	6 0 0	—
			£905 17 9	£890 4 6

	Drugs. Quantity Purchased.		Cost.	
	1924.	1923.	1924.	1923.
Absolute Alcohol	16 lbs.	48 lbs.	15 7 0	46 1 0
Absolute Alcohol (duty free)	15 gals.	19 gals.	8 13 10	10 18 9
Acid, Citric	196 lbs.	168 lbs.	13 16 6	13 17 8
Acid, Salicylic	336 lbs.	311 lbs.	32 8 8	34 1 4
Acid, Tartaric	196 lbs.	154 lbs.	10 6 6	9 4 9
Barium Sulphate	16 lbs.	16 lbs.	73 14 8	74 13 4
Benzil Succinate	4 lbs.	124 oz.	4 2 0	11 8 0
Bismuth Salts	198½ lbs.	166 lbs.	117 13 3	173 8 6
Camphor	154 lbs.	230 lbs.	22 19 6	44 3 6
Collosol Iodine	16 W.qts.	12 W.qts.	17 6 8	13 0 0
Collosol Sulphur	30 W.qts.	17 W.qts.	26 13 4	15 2 3
Ergot	224 lbs.	224 lbs.	14 5 4	21 9 4
Erythrol Tetranitate	—	8 oz.	—	19 4 0
Glucose Liquid	700 lbs.	755 lbs.	12 6 0	12 13 5
Glycerine	26 cwt.	25 cwt.	108 10 1	111 0 6
Green Mercurous Oxide	—	2 lbs.	—	1 3 0
Honey	10½ cwt.	672 lbs.	30 7 8	12 4 2
Lanoline, Anhydrous and Hydrous	266 lbs.	200 lbs.	7 14 7	6 12 8
Luminal	84 oz.	92 oz.	47 16 7	38 6 6
Luminal Sodium	68 oz.	27 oz.	45 17 3	11 4 6
Malt Extract	180 cwt.	160 cwt.	366 0 0	334 0 0
Menthol	25 lbs.	26 lbs.	38 15 0	40 8 6
Methyl Salicylate	524 lbs.	489 lbs.	62 6 6	63 7 8
Oxygen	—	—	217 18 9	248 18 6
Oil, Cod Liver	250 gals.	250 gals.	55 0 0	49 0 0
Oil, Linseed	518 gals.	693 gals.	103 5 5	137 16 3
Oil, Olive	494 gals.	253 gals.	203 14 0	107 4 4
Oil, Sesame	47 gals.	89 gals.	13 7 10	24 9 9
Paraffin, Liquid	2200 gals.	2160 gals.	684 3 4	675 14 2
Paraffin, Soft, Yellow and White	26¾ cwt.	27 cwt.	38 6 0	38 15 2
Picric Acid	39 lbs.	32 lbs.	4 8 5	4 10 0
Potassium Iodide	252 lbs.	231 lbs.	206 15 10	182 9 6
Potassium and Sodium Bromides	4¼ cwt.	672 lbs.	16 16 0	21 2 4
Silver Proteinate	8 lbs.	5 lbs.	4 2 9	2 8 0
Sodium Phosphate	—	277 lbs.	—	4 16 3
Spirit, Methylated	1300 gals.	1300 gals.	190 8 4	156 10 8
Spirit, Rectified	150 gals.	135 gals.	944 11 8	850 15 0
Sugar	85¾ cwt.	71¾ cwt.	206 10 1	204 17 5
Thyroid Desiccated	20 lbs.	30 lbs.	30 0 0	43 12 6
Turpentine	20 gals.	11 gals.	6 7 6	6 2 6
Zinc Oxide	5 cwt.	5 cwt.	12 11 0	12 19 0
Insulin	1558 bots. of 100 units	1553 bots. of 100 units	345 1 0	1264 6 6
			£4360 8 10	£5154 1 2

Pharmaceutical Laboratory.

	1924.	1923.
Collodions	2 gals.	2¼ gals.
Confections	37 lbs.	56 lbs.
Cresol and Soap	3300 gals.	3120 gals.
Dentifrices	48½ lbs.	39 lbs.
Developer	608 gals.	542 gals.
Extract Malt Ferrat	50 cwt.	30 cwt.
Extract Malt, cum Ol. Morrh.	140 cwt.	100 cwt.
Liniments	327 gals.	224 gals.
Mixtures and Emulsions including	14050 gals.	11157 gals.
Emuls. Magnesia	112 gals.	—
Ointments	2 tons.	35 cwt.
Pessaries, Acriflavine	11½ grs.	14 grs.
Pessaries, Ichthyol	14 grs.	7 grs.
Pessaries, Iodine	—	6 doz.
Pessaries, Silver Proteinate	23½ grs.	16 grs.
Pessaries, Sulphur	3 grs.	6 grs.
Soap Solution (1—4)	300 gals.	220 gals.
Syrups	1571 gals.	1171 gals.
Granular Effervescing Sodium Phosphate	163 lbs.	3½ cwt.
Tablets, Compressed, including	8 cwt. 18 lbs.	7½ cwt.
Formalin Tablets and	2 cwt. 64 lbs.	210 lbs.
Liquorice Lozenges	1 cwt. 63 lbs.	128 lbs.
Soda Water	14400 syphons.	9616 syphons.
Tinctures and Liquid Extracts	298 gals.	259 gals.

Dressings.

	Quantity Purchased.		Cost.	
			£ s. d.	£ s. d.
	1924.	1923.	1924.	1923.
Bandages, Crepe	88 doz.	75 doz.	38 10 0	38 18 3
Bandages, Grey, 1½in.×3yds.	142 grs.	140 grs.	34 9 4	32 12 9
Bandages, Grey, 2½in.×3yds.	449 grs.	280 grs.	163 16 8	108 3 4
Bandages, Grey, 5in.×6yds.	210 grs.	113 grs.	289 0 4	155 5 8
Bandages, Calico, 2½in.×6yds.	—	181 grs.	—	68 14 3
Bandages, Calico, 5in.×6yds.	—	98 grs.	—	74 0 0
Bandages, White, 1½in.×6yds.	16 grs.	101 grs.	7 10 2	45 17 0
Bandages, White, 2½in.×6yds.	152½ grs.	250 grs.	127 10 0	185 13 6
Bandages, White, 5in.×6 yds.	195 grs.	200 grs.	309 3 6	320 8 9
Bandage Cloth	57746 yds.	51514 yds.	696 13 3	612 16 6
Cellulose Wadding	28 cwt.	19½ cwt.	79 0 0	68 14 7
Eye Pads	38 grs.	87 grs.	8 13 2	20 0 6
Felt	100 lbs.	41 lbs.	40 1 11	21 4 7
Gauze, Cyanide	6574 yds.	6216 yds.	35 19 4	30 16 5
Gauze, Grey	39646 yds.	43506 yds.	154 11 2	168 1 0
Gauze, Iodoform	5504 yds.	6008 yds.	35 12 4	37 17 4
Gauze, White	—	2300 yds.	—	9 0 6
Gauze, Ribbon	75 doz.	99 doz.	14 17 6	20 4 5
Holland Brown	—	2943 yds.	—	48 5 11
Lint	82½ cwt.	82½ cwt.	946 8 0	868 15 10
Lint, Boric	2 cwt.	2 cwt.	17 14 10	14 18 8
Oil Paper	4000 shts.	5000 shts.	14 2 6	16 5 0
Tissue, Capsicum	37 lbs.	27 lbs.	5 16 6	3 14 4

	1924.	1923.	Cost. £ s. d.	£ s. d.
Tissue, Gutta Percha	140 lbs.	111 lbs.	50 11 9	44 15 6
Tissue, Wool and Gauze	147 lbs.	189 lbs.	10 18 2	11 16 6
Tissue, Wood Wool	—	28 lbs.	—	2 13 8
Tow	7¼ cwt.	6 cwt.	11 16 0	10 4 0
Wool, Absorbent	62 cwt.	58½ cwt.	377 0 0	299 0 7
Wool, Grey	68½ cwt.	56 cwt.	243 19 0	148 2 2
Strapping Rubber	108½ doz.	108 doz.	80 17 7	78 8 3
			£3794 13 0	£3566 1 2

The total expenditure for Drugs and Dressings as per Hospital certified Accounts is given below :—

	1924. £ s. d.	1923. £ s. d.
Drugs	7,801 17 10	7,801 7 6
Dressings	4,788 17 8	3,634 6 3
	£12,590 15 6	£11,435 13 9

E. WILLIAMSON,
Pharmacist.

March, 1925.

Sport.

Rugby Football.

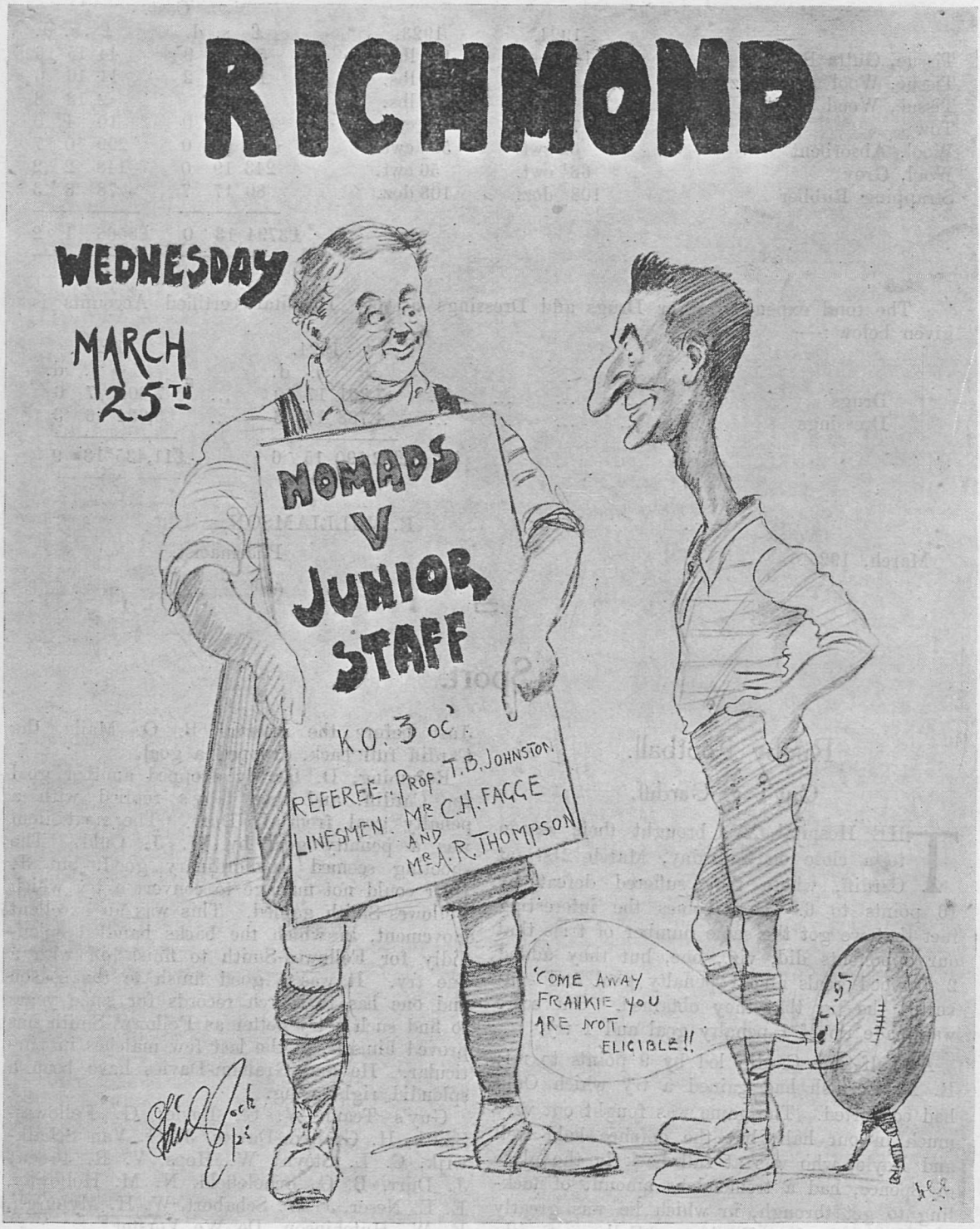
Guy's v. Cardiff.

THE Hospital XV. brought their season to a close on Saturday, March 21st, at Cardiff, where they suffered defeat by 16 points to 6. Now comes the interesting fact that we got the same number of tries that our opponents did, viz., one, but they added 2 dropped goals and 1 penalty goal and converted the try that they obtained. Our score was made up of 1 penalty goal and 1 try.

At half-time Cardiff led by 9 points to nil; R. A. Cornish had gained a try which Ould had converted. The game was fought out very much in our half, but the defence held well and Boyle, who was at full back in the place of Spence, had a tremendous amount of tackling to get through, in which he was greatly assisted by Graham-Davies and Fellowes-Smith. Just before the interval B. O. Maile, the Cardiff full back, dropped a goal.

Resuming, D. Herlily dropped another goal for Cardiff, and then Guy's replied with a penalty goal from J. Durr. The next item was a penalty goal by W. J. Ould. The shooting seemed extraordinary good, but J. Durr could not manage to convert a try which Fellowes-Smith gained. This was an excellent movement, in which the backs handled splendidly for Fellowes-Smith to finish off with a fine try. It was a good finish to the season and one has to search records for some years to find such a try-getter as Fellowes-Smith has proved himself, in the last few matches in particular. He and Graham-Davies have been a splendid right wing.

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, H. Graham-Davies, J. G. Van Schalkwijk, C. L. Steyn; W. Hops, V. R. Preen; J. Durr, B. G. Scholefield, N. M. Holloway, E. E. Neser, J. W. Schabort, W. H. Myburgh, E. W. Hutchinson, De We Vorster.



THE ANNOUNCEMENT.

The Nomads v. The Junior Staff.

RICHMOND is a fine place for the Rugby Football. I know very little about the game, but as soon as I saw Richmond with its nice green grass and nice white goal posts and the chalked lines and the ropes to keep back the spectators, I said to myself "This is a fine place for it." There were two stands as well, in which one could sit and shelter from the rain, but it was not possible to see the game from them, so that they were not used. The ropes to keep back the spectators were not used either, as the spectators stood on the wrong side of them.

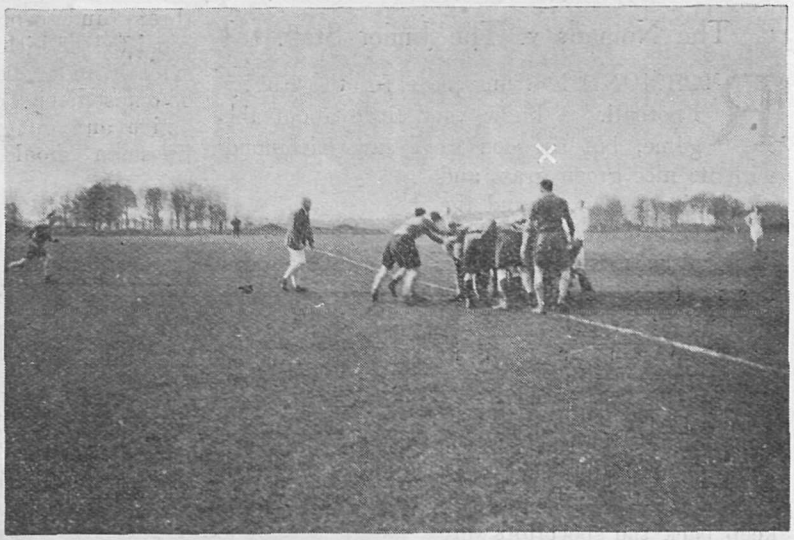
The spectators arrived early and included many ladies; Sisters of the Hospital and wives and sisters of the players. Presently these heroic people began to stroll on to the field in twos and threes and proceeded to "get warm." This consisted of kicking the ball away and running after it and nobody did better at this than Mr. Thompson, one of the linesmen. He was very active and got very warm indeed. The other linesman should have been Mr. Fagge, but

THE TEAMS.

THREE NOMADS AND A FRIEND.
? ; E. J. PYE-SMITH ; F. N. MARTIN ; A. G. ENSOR.)

the Secretary of the Nomads, who mismanaged things very badly, sent him to H.O.P. by mistake, and he only arrived in time to see the last half of the game. It was fortunate that he did arrive though, as otherwise Mrs. Fagge would not have been there to give away the prizes. (I may seem to be a little harsh towards the Secretary of the Nomads, but seeing that he asked me down to report the match and then let me pay my own fare—ninepence return—I feel a little embittered.) Mr. Fagge's place was taken by Dr. Scott, who carried himself splendidly and wore his bowler

hat from start to finish. The Nomads from the start appeared to hold an advantage, as they wore white jerseys with large numbers on their backs. Only their best players wore numbers and I think the reason was so that they could have their attention called before the ball was thrown to them. Thus, a Nomad would call out, "here you are Number 17," and Number 17 would get himself all ready to catch the ball—that is unless, as sometimes happened, he was waving his hand to the wives and sisters. This number was very prominent throughout the entire game, as was only to be expected when it was carried by H. M. Ashwin, who threw his weight about with abandon for the first few minutes until he was pushed in the face very hard by George Doherty of the Junior Staff. When I saw this I called out "foul!!" but nobody took any notice and the game went on. I don't think now that it could have been one, for the Dean, who was referee and wore a lovely blazer, was very severe on foulers and early on gave a free kick to the Nomads. As they made a bad kick, he immediately gave one to the Junior Staff and Neser scored a goal. (Score 3—.0) I think I should like to congratulate Neser and Scholefield on their elevation to the Junior Staff. This is the only intimation that there has yet been of these promotions.



DOHERTY USING HIS WEIGHT IN THE SCRUM.
(Doherty is marked with a cross).

This free-kick goal rather infuriated John Simons (Nomad), who soon after kicked the ball right out of the field, but it did little good as they had brought another one down to Richmond and Meacock (Junior Staff) got hold of this and scored a try. Lloyd (J.S.) kicked at the goal but missed, and Scott waved his handkerchief in a most disdainful way. He has no use for failures. Score 6—0.)

Time went on and the struggle became fiercer every minute. Laver (J.S.), working in the scrum, made the most awful faces, and Doherty (J.S.) working outside it, shouted with all his might. It was just dreadful and they were all so near the spectators and were all panting so hard that a cry of relief (from me) went up

THE GAME IN PROGRESS.
(The influence of the Russian Ballet is here very noticeable. The fourth and fifth players from the right, H. M. Ashwin and F. N. Martin, and L. Forman on the extreme left, are seen indulging in some characteristic steps).

as Copley (N.) got the ball and ran away with it until he met Harding, the Junior Staff full back, when he gave it to Newbery (N.) who scored a try. Pye-Smith (N.) kicked a goal and made the score 6—5. Harding had little to do in the first half, but he said afterwards that he "took Marsh" once. I think he must have lost the negative, otherwise this would have been one of the most original illustrations of the match.

For the rest of the first half the Junior Staff pressed hard, so hard that I feared some of the Nomads would be flattened out for good. The Dean kept making them have scrums five yards from the line, but the Junior Staff kept thinking that he said one yard and so unwittingly got a great advantage. Suddenly Rogers (J.S.) got the ball and running straight and true, flung himself down for a try, which it would have been had he been on the right side of the line. O'Meara (J.S.) next got the ball, but, except for bouncing it on his scrum half's back and catching it again, did little of note, and Bekker (J.S.), to whom congratulations on his appointment to the Junior Staff, got tired of all this sort of thing and just scored a try as easily as anything. It was not converted and the interval arrived with the score 9—5.

The regular Rugby Correspondent to the GAZETTE calls the interval "lemon time," but I can't think why, as everybody set to work to eat oranges. Some of the better class players called for knives, with which to cut them up, but the majority of them used their teeth. I include a portrait of the Nomad Secretary using his. Several of the players lay down to rest during the "lemon time," and Laver (J.S.) took off his boots, having, as I discovered later, been punched on the nose. However, they made him put them on again and actually waited while he did so, slowly and without enthusiasm. This is the first time I have ever seen a player show his disapproval of a Rugby football game in this manner.

In the second half Harding (J.S.) was moved into the scrum and so, as there was no one to "take" him, March (N.) scored a try between the posts, and Pye-Smith (N.) converted it (score 9—10). Excitement was now intense, and Wornum (J.S.) who wore scarlet stockings (in honour, I suppose, of his elevation to the Junior Staff), and had in consequence been moved into the greater light of the three-quarter line, was so overcome by it that, when the ball was thrown to him, he jumped right up into the air and clapped his hands above his head ever so prettily, but he didn't get the ball. Backwards and forwards the game raged, and the referee was getting so anxious at the non-arrival of his second wind that he kept looking at his watch to make sure that it hadn't stopped. There were now no place distinctions. Forwards, three-quarters, halves and quarters all fought together on an equal footing, and the game might easily have ended with the Nomads the winners had not Bekker (J.S.) suddenly realised what was happening and scored a last, unconverted try. This was the end, and the Junior Staff were the winners by 12 points to 10.

The prizes were now presented by Mrs. Fagge, and, everyone agreeing they had been won by the Dean, Mr. Thompson and Dr. Scott, these three were given chocolate animals in paper bags very graciously.

I know a large number of the Nomads' team personally and even some of the Junior Staff notice me occasionally, but I should like to say, in the words of one of the Nomads' forwards, whom I overheard saying them later in the evening to the lady behind the bar, "If it's any consolation to you, I like you."

The teams were:—

Junior Staff.—H. E. Harding; D. J. P. O'Meara, F. Bekker, E. E. Neser, T. G. D. Bonar; N. L. Lloyd, S. P. Meacock; W. H. Ogilvie, W. D. Doherty, B. G. Scholefield, B. L. Laver, E. Wornum, L. Forman, A. T. Rogers, N. Booth.

Nomads.—A. G. Ensor; W. S. Hunt, A. C. Copley, K. S. Fitch, L. S. Williams; A. R. Marsh, E. J. Pye-Smith; J. N. Martin, J. C. Hewitson, D. A. Timson, J. A. Simons, H. M. Ashwin, D. A. Newbery, A. S. Gough. R. Evans.

Resume of the Season 1924-25.

Compiled by Mr. R. C. HOLLOWAY.

THE Hospital's "Rugger" season finished with the match at Cardiff. It is interesting now to compare this season's figures with the past season. Taken on the whole the record is good, there were four more matches played than the previous season, but the number of points scored is only 6 more, whereas the points against us are 79 extra, which points to a weaker de-

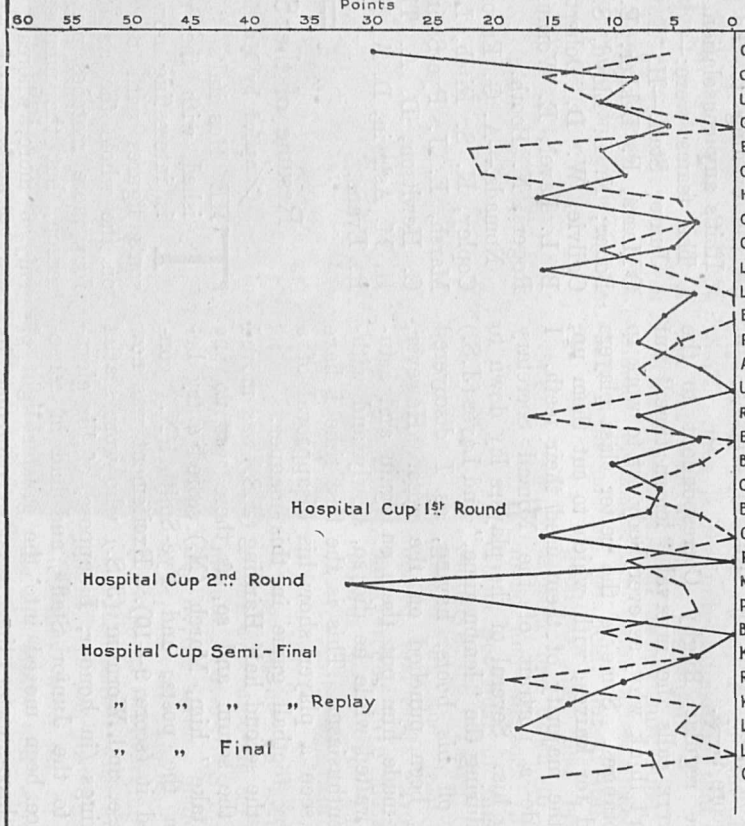
GUY'S HOSPITAL R.F.C.

— SEASON 1924-25: —

(For) **TOTAL POINTS** 291 — Average Points per Match **9·4**

— Percentage — **56·45**

(Against) **TOTAL POINTS** 230 — Average Points per Match **7·42**



OPPONENT	DATE	G	F	A	Points F (T)	Points F (G)	Points A (T)	Points A (G)	TRY GETTERS	GOAL SCORERS
Catford Bridge	1924 Sept. 20	H	30	6	3	5+	2	0	Fellowes-Smith 1 Graham-Davies 1 Van Schalkwijk 1 Steyn 4 Preen 1	Van Schalkwijk 3
Coventry	" 27	A	8	16	1	1	3+	1	Graham-Davies 1 Van Schalkwijk 1	Van Schalkwijk 1
United Services	Oct. 4	H	11	11	1	2	1	2	Graham-Davies 2 Fellowes-Smith 1	Graham-Davies 1
Gloucester	" 11	A	5	0	1	0	----		Preen 1	Graham-Davies 1
Bristol	" 18	A	11	22	3++	0	3+	3	Schofield 1	Van Schalkwijk 1 1+ Hutchinson 1+
Cambridge Unv.	" 22	A	9	21	—	3	4+	1	Van Schalkwijk 1 Preen 1 De Wet Vorster 1	
Harlequins	" 25	H	16	5	2	2	1	0	Fellowes-Smith 1 Durr 1 Clark 1 Leslie 1	Van Schalkwijk 2
Old Blues	Nov. 1	H	3	3	0	1	0	1	Hutchinson 1	
Coventry	" 8	H	5	11	1	0	3++	0	Graham-Davies 1	Graham-Davies 1
London Scottish	" 15	A	16	6	2	2	—	2	Preen 2 Van Schalkwijk 1 Mostert 1	Van Schalkwijk 2
London Welsh	" 22	H	3	0	0	1	----		Fellowes-Smith 1	
Blackheath	" 29	H	6	0	0	2	----		Fellowes-Smith 1 Van Schalkwijk 1	
Richmond	Dec. 6	A	8	5	1	1	1	0	Fellowes-Smith 2	Van Schalkwijk 1
Aberavon	" 13	H	3	8	0	1	1	1	Fellowes-Smith 1	
United Services	" 20	A	0	6	----		0	2		
Royal Air Force	1925 Jan. 7	H	8	17	1	1	4ø+	0	Steyn 1 Preen 1	Van Schalkwijk 1
Bristol	" 10	H	3	0	0	1	----		Van Schalkwijk 1	
Birkenhead Park	" 17	H	10	3	ø	1	2	0	1	Fellowes-Smith 1 Graham-Davies 1	Fellowes-Smith ø1
Cambridge Unv.	" 28	H	6	9	-	0	2	0	3	Steyn 1 Durr 1	
Bart's Hospital	Feb. 5	N	8	3	1	1	0	1	Fellowes-Smith 2	Neser 1
Old Leysians	" 7	H	16	0	+	3	1	----	Fellowes-Smith 1 Graham-Davies 1 Van Schalkwijk 1	Boyle 1+ Neser 1+
Royal Navy	" 14	A	0	9	----		0	3		
Middlesex Hospital	" 19	N	32	4	4	4ø	1	0	Fellowes-Smith 2 Graham-Davies 1 Van Schalkwijk 2 Steyn 2 Holloway 1	Graham-Davies 1 Van Schalkwijk 1 Durr 2
Plymouth Albion	" 21	H	17	3	+	3	2	0	1	Fellowes-Smith 2 Durr 1	Durr +2 1
Birkenhead Park	" 28	A	0	11	----		1	2		
King's Hospital	Mar. 3	N	3	3	0	1	0	1	Durr 1	
Rosslyn Park	" 7	H	9	24	0	3	3	3	Leslie 1 Steyn 1 Visser	
King's Hospital	" 9	N	14	3	1	3	0	1	Fellowes-Smith 3 Durr 1	Graham-Davies 1
London Irish	" 14	A	18	5	3	1	1	0	Fellowes-Smith 3 Van Schalkwijk 1	Van Schalkwijk 3
London Hospital	" 19	N	7	0	ø	1	1	----	Fellowes-Smith 1	Steyn 1ø
Cardiff	" 21	A	6	16	+	1	1	4ø+	0	Fellowes-Smith 1	Durr +1

PLAYED 31. WON 16. DRAWN 3. LOST 12.

+ Indicates Penalty Goal ø Indicates Drop Goal

fence than last season. An interesting coincidence is that our points in detail are, with exception of the tries scored, exactly the same as those of the previous season's, i.e., 26 tries converted, 2 dropped goals and 6 penalty goals. A word should be said for Fellowes-Smith, whose fine play has led to many victories. He has played in every game except one (v. Rosslyn Park, resting for Cup match) and has scored 24 tries and 1 drop goal. Congratulations are to be given to our Capt., Van Schalkwijk, for leading his men so often in splendid matches, and also regaining the Hospital Cup again for Guy's. The following figures show our records for the past three seasons:—

Season 1922—3.—Played 32; Won 19, Lost 9, Drawn 4, Points for 343, Points against 201; 65·62 per cent.

Season 1923—4.—Played 27; Won 13, Lost 11, Drawn 3, Points for 285, Points against 151; 53·4 per cent.

Season 1924—5.—Played 31; Won 16, Lost 12, Drawn 3, Points for 291, Points against 230; 56·45 per cent.

The following have played for the First XV. during the season—

Fellowes-Smith (30), Van Schalkwijk, Preen, Myburgh (28), Durr (27), Schabort, Hutchinson (26), Holloway (25), Graham-Davies (24), Spence, Hops (23), Scholefield, De Wet Vorster (20), Popplewell (17), Clark, Neser (14), Cameron (13), Steyn (11), Leslie, Visser (9), Mostert (7), King-Turner, Boyle (5), G. Tregarthen, Radford (4), Finnimore, Meissner (3), Trick, Ettles, Kurtz (2), Ive, Lewis, Western, Jones, Russell, J. Tregarthen, Simpson, Brittain and Keith-Williams (1).

The following have scored tries—

Fellowes-Smith (24), Van Schalkwijk (10), Steyn (9), Graham-Davies (8), Preen (6), Durr (5), Leslie (2), Scholefield, De Wet Vorster, Clark, Hutchinson, Mostert, Holloway and Visser, 1 each.

The following have scored goals—

	Tries Converted.	Dropped.	Penalty.
Van Schalkwijk	15	0	1
Graham-Davies	5	0	0
Hurtchinson	0	0	1
Fellowes-Smith	0	1	0
Neser	2	0	1
Durr	3	0	3
Steyn	0	1	0
Boyle	1	0	0

Making a total of—

Tries 71; Tries Converted 26; Dropped goals 2; Penalty goals 6. Total Points 291.

Our Opponents Score was as follows—

Tries 50; Tries Converted 20; Dropped goals 4; Penalty goals 8. Total Points 230.

Therefore the Complete Figures are—

Played 31; Won 16, Lost 12, Drawn 2.

Totals Points for 291. Total Points against 230.

Average Points for 9·4. Average Points against 7·42.

Percentage 56·45 per cent.

United Hospitals Sailing Club.

A GENERAL Meeting of the United Hospitals' Sailing Club was held at Mr. Claud Worth's house, 34, Harley Street, at 8 p.m., on Wednesday, the 28th of March. Much interest was taken in the two new dinghies that were just about to be launched, and members were looking forward with great keenness to the week-ends at Fambridge, on the River Crouch. After some discussion we drew up and passed the Inter-Hospital rota whereby dinghies were allotted to Guy's as follow, the dates being from Friday mornings to Thursday evenings :—

April 10—16, "Sandpiper."
April 24—30, "Osprey."
May 1—7, "Lipoma."
May 15—21, "Sandpiper."
Msy 29—June 4, "Osprey."
June 5—11, "Lipoma."
June 19—25, "Sandpiper."
June 26—July 2, "Osprey."
July 3—9, "Osprey."
July 10—16, "Lipoma."
July 31—August 6, "Osprey" and 'Sandpiper."
August 14—20, "Lipoma."
August 21—27, "Sandpiper."
August 28—September 3, Regatta.
September 4—10, "Lipoma."
September 11—17, "Osprey."
September 18—24, "Lipoma."
October 2—8, "Sandpiper."

This being settled, the Hon. Boatswain reported the existence of a room at Fambridge which could easily be made into a Club House and fitted with a fire and bunks. The great advantage of a room in which members could change and dry their clothes and store the Club's property was fully appreciated, and it was decided to negotiate with the owner with a view to the hire of this room. If this could be obtained on terms which we could afford it would be an inestimable boon to the Club.

Various other details of business arose and then we came to the real object of the Meeting, namely, a discourse by Mr. Claud Worth on "Pilotage and Passage Making in Narrow Waters." Mr. Worth's fame as a yacht cruiser is world-wide and it need hardly be said that his words were listened to with intense interest by everyone present. Mr. Worth explained that by narrow waters he meant, for example, a passage from Lowestoft to Ramsgate, where the navigator, although never out of touch with buoys and landmarks had numerous banks and other obstructions to contend with. He began by exhibiting the compasses and binoculars which he uses on "Tern IV" and explained the practical points of importance in connection with these. Any of us who may have thought he knew something about the instruments of navigation soon realised how much more there was to know. The use of the lead in deep waters as an aid to navigation was a new idea to most of us. Mr. Worth stated that he always carried a 20-fathom lead and on one occasion this had been his principal instrument in navigating a passage from Swanage to Dartmouth when the weather was so thick that he could not see a single landmark from harbour to harbour. He steered by the compass and checked his position by following with the lead the channels on the bottom of the sea.

He discussed, with a wealth of vivid detail, the best methods of finding one's position in various circumstances and stressed the need for constant vigilance when conditions were clear. He then went into the question of leeway and tides and how to allow for these in laying off a course. Logs, foghorns, lights and other paraphernalia of seamanship also passed under review.

It was impossible not to respond to Mr. Worth's enthusiasm and in his words one could almost feel the stimulating atmosphere of the sea. An interval for refreshment was followed by much discussion of the points raised by Mr. Worth and members finally departed at a late hour after a very delightful and instructive evening.

Hospital Information, etc.

The British Spa Federation.

AT the Annual Meeting of the British Spa Federation representing Bath, Buxton, Cheltenham, Droitwich, Harrogate, Leamington, Llandrindod Wells, Woodhall Spa, Strathpeffer and the New Zealand Government Spas, which has just been held in London, the following conditions of membership, with which every Spa admitted to the Federation must comply, were adopted:—

(1) The possession of natural mineral waters of proved therapeutic value.

(2) The existence of a Bathing or Pump Room Establishment approved by the Federation.

(3) The existence of an available, suitable local medical authority devoted to spa practice.

(4) Proper hotel, etc., accommodation in the immediate vicinity.

(5) Treatments to be given only under medical prescription, not more than twelve months old, except in the case of certain minor treatments definitely specified by the local controlling authority.

(6) The amenities, and sanitary and other conditions of the spa to be approved by the Federation.

(7) The control of the spa to be in the hands of a Public Body, or an approved private body.

It was further resolved that:—

Before the admission of any spa the Federation shall depute three representatives (one of whom shall be a spa medical practitioner appointed by the Federation) to visit the spa and report fully thereon to the Federation.

The Federation emphasises the necessity of a high standard of practice at the British spas and insists on its members working in conjunction with the medical profession. It is the aim of the Federated British spas by these and other means, combined with the research work which is now going on at several spas, to provide medical men with hydrological centres in this country at which they may be sure of their patients receiving efficiently administered treatment.

At the meeting it was decided that the Hon. Secretaryship of the Federation should be held in turn by representatives of the various spas, and Mr. John Hatton, the Director of the Baths of Bath, was elected to that office, in succession to Mr. F. J. C. Broome, General Manager of the Royal Baths, Harrogate, who received the warm thanks of the Federation for the valuable service he has rendered.

The Federation decided to place a series of combined announcements in the medical press, setting forth the chief features of each resort, and to co-operate with the International Society of Medical Hydrology in their scheme for lectures on Medical Hydrology at the University and Hospital Medical Schools.

Medical Hydrology.

A COURSE of lectures on Medical Hydrology, supplemented by Demonstrations and Clinical Lectures at a British Spa, has been arranged by the Board in co-operation with the Committee for the study of Medical Hydrology in Great Britain.

The Course will commence on Monday, April 27th, 1925, and end on Saturday, May 2nd.

The University will grant a Certificate of Attendance to those who have attended both the Lectures and Demonstrations.

Further particulars will be given to those interested by Dr. E. P. Poulton, Guy's Hospital.

The Lectures and Demonstrations, to be delivered at the University of London, South Kensington, unless otherwise stated, will be:—

Monday, April 27th, 1925—

10 a.m.—By John C. Thresh, M.D., D.Sc.
The Types of Water which occur in Nature.

11.30 a.m.—By Henry Dewey, H.M. Geological Survey, President of the Geologists' Association.
Hydrogeology.

2 p.m.—By R. Fortescue Fox, M.D., F.R.Met.S.
The Properties and Actions of Medicinal Waters.

Tuesday, April 28th—

10 a.m.—By Professor J. Barcroft, F.R.S.
The Capillary Circulation in the Skin.

11.30 a.m.—By R. Fortescue Fox.
The Actions and Uses of Baths.

3 p.m.—Demonstration on the Bacteriological, Physical and Chemical Analysis of Waters.—A demonstration will be given on the bacteriological, physical and chemical analysis of waters at the Counties Public Health Laboratories, 91, Queen Victoria Street, E.C.4, by Drs. J. C. Thresh and John F. Beale, with especial reference to the deductions which are to be drawn from the examination of waters.

Wednesday, April 29th—

10 a.m.—By J. B. Burt, MD.
The Action of Waters and Baths in Disorders of the Digestion.

11.30 a.m.—By Vincent Coates, M.C., M.A., M.D.
The Action of Waters and Baths in Arthritis.

3 p.m.—Demonstration on the Effects of Open Air and Sunshine upon the Body. The Demonstration will be given by Leonard Hill, M.B., F.R.S., at the National Institute for Medical Research. (The Institute is close to Hampstead Tube Station). Tea will be provided in the Library after the Demonstration.

Thursday, April 30th—

10 a.m.—By J. Rupert Collins, M.A., M.D. M.R.C.P.Lond.
The Action of Waters and Baths in Neurasthenia.

11.30 a.m.—By R. Fortescue Fox.
The Use of Heat in the Treatment of Disease.

Study Tour to a British Spa.

Thursday, April 30th—

2.25 p.m.—The party leave St. Pancras, arriving at Buxton, 6.5 p.m. Dinner together, followed by an appreciation of the Spa by Dr. Fortescue Fox.

Friday, May 1st—

10 a.m.—Demonstrations of the Mineral Bath Establishments, and brief lectures on

the methods in use and the characters of the waters—

(1) Natural Baths and Peat Baths, Dr. Shipton.

(2) Thermal and Massage Baths, Dr. F. Sawdon.

(3) Accessory Methods of Treatment, Dr. Harburn.

11.30 a.m.—At the Devonshire Hospital. Demonstration of Biochemical investigations into the action of the waters on gout and other diseases, by the Bio-Chemist to the Institution, Mr. J. Race, F.I.C. Demonstration of the Bacteriological work done in infective arthritis, etc., by the Bacteriologist, Dr. Eric Biddle.

12.30 p.m.—Demonstration of X-ray work and radiograms by the Radiologist, Dr. Cochrane.

2.30 p.m.—Clinical Demonstrations on groups of cases showing the following diseases and their modes of treatment; Gout, Fibrositis, Sciatica, and various forms of Arthritis, by Drs. Buckley, Burt, Hendry and G. Sawdon.

4 p.m.—Demonstration of mechano-therapeutic apparatus and its uses in Nervous diseases, deformities' etc., by Drs. Leslie and Potter.

Saturday, May 2nd—

Proceeding by motor-coach, via Haddon Hall, the party will visit Smedley's Hydropathic Establishment at Matlock, where they will be entertained to luncheon. Dr. Harbinson will show the baths, etc. and explain their action.

3 p.m.—Train departs for London.

Papers by Guy's Men.

R. P. Rowlands, M.S., F.R.C.S. A Clinical Lecture on Cancer of the Stomach.—*B.M.J.*, 1925, i., p. 587.

N. A. D. Sharp, M.R.C.S., L.R.C.P. The Treatment of Scorpion Sting.—*Journ. Trop. Med. and Hygiene*, 1924, xxvii., p. 336.

John A. Ryle, M.D., F.R.C.P. Goulstonian Lectures on the Study of Gastric Function in Health and Disease.—*Lancet*, 1925, i., Lecture II., p. 641. Lecture III., p. 697.

Change of Address.

T. M. Hurwitz, M.R.C.S., L.R.C.P., Garies, Namaqualand, C.P., South Africa.

Pass List.

University of London.

2nd M.B., B.S. Examination for Medical Degrees.

Part II.

March, 1925.

S. I. Abrahams.
E. T. Conybeare.
S. J. M. de Nevasquez.
H. B. A. R. Densham.
D. E. Dunnill.
J. P. M. Fraulo.
E. D. Grasby.
H. N. W. Harley.
T. R. Hill.
E. C. N. Huddy.
W. F. Hudson.
W. S. McConnell.
J. E. Morton.
C. M. Ockwell.
N. E. Pitt.
E. C. Till.
R. S. Twigg.

Part I.

March, 1925.

W. L. M. Bigby.
J. B. Blaikley.
G. C. Campbell.
C. F. Cosin.
S. N. Evans.
R. E. Fossey.
C. R. E. Freezer.
F. W. Gilbert.
G. H. Gool.
C. Gross.
C. H. Johnson.
W. J. Johnson.
W. B. G. Jones.
K. E. Lane.
B. A. Moss.
R. J. L. O'Donoghue.
W. P. Roe.
E. B. Rogers.
W. Ruzzak.
S. A. Scorer.
D. B. Smallshaw.
T. T. Stamm.
S. J. Wheeler.

Publications Received.

The Dragon, The Medical Journal of South Africa, The British Medical Journal, The Hospital Gazette, The Long Island Medical Journal, The Canadian Medical Association Journal, The Serpent, The Gong, The Nursing Times, The Kenya Medical Journal, The Dental Record, The Antiseptic.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

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Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

Birth.

HURST.—On March 30th, 1925, at Heath End, Ascot, the wife of Arthur F. Hurst, M.D., F.R.C.P. —a daughter.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *April 25th, 1925.* *Number 960*

PASSIM

DURING a short life, but one crowded with incidents of the greatest variety, we have had many things thrown at us. Some were thrown light-heartedly and in good fellowship, as, for example, a tomato or egg in the Dressers' Room, others with withering hostility, as the taunt described in our last "Passim." Now we have had thrown at us the accusation of being a "woolly thinker." The occasion was a discussion on the advisability of removing tonsils at the earliest possible opportunity from all those unfortunate enough to possess them, and because we suggested that, since all children were born with them, they might possibly be rather less harmful than our universal tonsillectomical controversialist thought, we were called a "woolly thinker." He had not studied medicine at Guy's, and his remarks led to our discovery of the fact that there are other schools of thought besides that of our own Hospital. This revolutionary discovery invoked in us a passionate desire to learn other people's points of view, and, collecting an armful of daily papers, we proceeded to read up the foreign news. Our eye fell on the startling head-line "France menaced by her declining birth-rate," and as this seemed to be a good starting point for a short course of comparative ideas, we read on.

The French birth-rate, it seems, is declining rapidly, owing to the practice of birth-control, a fact that our readers have perhaps known for a very long time. It is now declining so rapidly that prizes are being offered to the families that produce the most babies or the best babies, we forget which, during a certain period. "Babies at all costs" is the slogan, and the costs of the prize-winners will be refunded by the local governments. In England affairs are very different. Birth-control is warmly supported in many quarters, including our own quarters, and the curious situation arises of the English Channel separating two nations, one of which has too many babies, not sufficiently prized, while the other has prizes without any babies.

When we say that we are strongly supporting the control of indiscriminate infant-production it must not for a moment be thought that we refer only to our woolly self. A long line of Editors is warmly in favour of a reasonable control of births. Not only should a child be relieved of the affliction of appearing fourteenth or fifteenth in an impoverished family, but it should also be able to choose its own parents with the help of those who already have them.

A child as soon as it is born is a "reasonable creature in being and under the King's Peace," and, as such, is entitled by all the laws of justice and humanity to reasonable creatures for its parents. A mentally deficient person is not usually very reasonable and a tuberculous adult, who has children, is equally unreasonable, and we are glad to see that a late Editor of this GAZETTE, Colonel F. E. Fremantle, M.P., is to introduce a deputation

to the Minister of Health to urge the education of public opinion in favour of people securing a certificate of health before marriage. Should such a pre-marital condition be made law, many sad scenes will occur; asthmatical lovers will suffer agonies, restraining their wheezing while up before the Board of Certificators, and no doubt schools for the re-education of lost knee-jerks will witness many pathetic failures; but not one can be more sad than the sight of some of the innocent victims of uncertificated marriages, and we wish our distinguished predecessor complete success in his enterprise.

A MOST curious incident has occurred in the Hospital and has shaken the considered opinion of many in our present knowledge of anaphylaxis. One of the Nurses received, in the course of treatment, a subcutaneous injection of horse-serum, without any untoward effects. Later, however, after a light luncheon of BEEF she exhibited all the symptoms of anaphylaxis. This remarkable phenomenon will doubtless lead bacteriological research along a new line.

THE heartiest congratulations to P. D. B. Spence on winning the Men's British Hard Courts Championship at Torquay, and, with Miss Colyer, the Mixed Doubles Championship. It is very much hoped that he will find time, as he did last year, to play for the Hospital, at least in the Inter-Hospital Matches.

IT is generally known that Mr. G. Bellingham-Smith is about to retire from the active Staff of the Hospital, and we now hear, with the greatest regret, that he will do the last teaching round of his wards on Monday next, April 27th. We announce this fact for the benefit of all those who may wish to accompany our Senior Obstetric Surgeon on his farewell round.

Pass List.

Conjoint Board.

April, 1925.

First Examination.

Chemistry, Physics and Elementary Biology.

*M. D. Tomlyn.
†T. D. T. Brocklehurst.
†J. Chamberlain.
†A. C. Davies.
†F. S. Hobbs.
†L. R. Rowlands.
†L. D. Pringle.
†C. J. C. Siggers.

*Chemistry only. †Elementary Biology only.

Pre-Medical Examination.

Chemistry and Physics.

W. F. H. Frost.
A. H. Fuller.
J. C. Read.
A. L. Wraight.
V. Constad.
F. N. Corfe.
P. R. Shepherd.
R. B. Sutcliffe.
*C. E. Kurtz.
†R. J. Tierney.
†R. E. L. Jones.

*Chemistry only. †Physics only.

Second Examination.

Part I.

Anatomy and Physiology.

A. McEwen.
*M. N. Menon.
*W. F. L. Hannay.
†C. Arkles.
†J. W. Ellis.
H. G. Floyd.
H. I. Maister.
E. N. Stevens.
W. J. E. Radford.
†A. D. H. Hugo.
*E. H. Sears.
*R. G. Sowter.
*S. E. Knowles.
G. Van R. Mostert.
†D. K. Weston.

*Anatomy only. †Physiology only.

Part II.

Pharmacology and Materia Medica.

D. K. Weston.
N. H. C. Allen.
R. Schofield.
S. Slotar.
L. P. Tupling.
R. Jarman.
E. Robinson.
J. A. Vernon.
J. A. Simons.

L.D.S.

Preliminary Science.

Chemistry and Physics.

C. J. O'Donoghue.
W. M. Levy.
G. E. Hausen.
J. D. Bowling.
†R. A. Bagg.
†S. Sharp.
†V. R. Preen.

†Physics only.

Society of Apothecaries of London.

Primary Examination.

Part I and II.

Anatomy.

H. S. Marks.

Physiology.

H. S. Marks.

Final Examination.

Forensic Medicine.

B. Horwitz.
T. McD. Kellough.
*C. C. Po.

*Has now qualified.

Treatment by Deep Therapy.

A Lecture delivered at Guy's Hospital on Monday, March 23rd, 1925, by W. LANGMUIR-WATT, C.M.G., M.D.

GENTLEMEN,—I mean by a ray a vibration of ether. A ray is not a straight line between one point and another, it is an oscillation. The nearest parallel to it is, if you take a bow and pull the string and then let it go, it will vibrate for a certain length of time and finally come to rest. And, depending on the number of vibrations, you get the wave-lengths; the quicker the vibrations the shorter the wave, the less the vibrations in a given time, the longer the wave. One could, for example, take the keyboard of a piano and allocate the centre octave to light waves. The lower octaves would be occupied by the waves which are known as Hertzian waves, but are now popularly designated as wireless waves. The average vibration of the wireless wave is only 780,000 times a second. At the upper end of the wireless waves we get the sound waves, those which are audible to the ear. Just beyond are the radiant heat and the diathermy waves, and then you come into the visible waves of light. Light, as you know, is made up of all colours, from the red to the violet. The longest wave-length is the red, the shortest is the violet. The vibrations of a red wave are 400 billions per second, and those of a violet wave are 800 billions per second. Com up the keyboard, beyond the violet we come into the ultra-violet region. At the time of Rontgen the ultra-violet wave was the only one known. The length of the shortest ultra-violet ray is 1/80 thousandth of a mm.; its oscillations 1,600 billions per second. The remaining octaves of the keyboard would be occupied successively by soft, medium hard, hard and extremely hard X-rays, and the gamma rays of radium. The shortest X-ray used to-day is a 2-millionth of a millimetre.

I thought it would interest you to see what the original Rontgen tube was like, therefore I show you a drawing of the exact tube used by Rontgen himself. It is simply a modified Crookes' tube. Sir William Crookes used these, and he had been unknowingly generating X-rays in his experiments. It remained for Rontgen to discover these rays. It was from a small Rumkorff coil, with an ordinary spring interruptor as used in faradic coils that the electrical stream was generated, which passed into the tube through the little ball which you see. The tube was a partial vacuum, and the rays were thrown out in all directions. Most of the rays were so weak that they were unable to penetrate the glass. A few came through the glass, and these were what Rontgen found to be the X-rays. When they came on to the hand, they were so soft that at least 90 per cent. were absorbed by the skin. It is marvellous to think that Rontgen described every property of X-rays, and despite all the work that has been done on the subject in 25 years, nothing new has been discovered.

This slide illustrates the high-power tube with absolute vacuum, as used to-day. Instead of the former few thousand volts, we are using 220,000 volts of electricity. Passing through the tube are the electrons. An electron is one sixteen hundredth of the size of the atom of hydrogen, and these electrons travel at 60,000 miles a second. At the time of Rontgen probably the fastest speed was 4,000 miles a second. They strike the target in the tube, and rays are emitted. These waves are not all of the same length. It is conceivable that some of the electrons collide with each other on the way, and others do not hit the target so true. And so, for one reason or another, some waves are weaker than others. The same thing happens when you fire a shot-gun; at a distance of 40 yards some of the shot will be travelling 6 feet behind the foremost. By putting in a filter of 15 to 20 mm. of aluminium here, we cut off the softer rays and only allow the very hard ray to go through; these are the rays we use in deep therapy.

What is the effect of these rays? If we gave a small dose and examined the cells with a microscope we should find there was no change except that the nucleus does not stain quite so deeply as the normal one. If we give a larger dose and examine again, we find the nucleus has been broken up into little globules of chromatin, just as if you let a drop of mercury fall on to a table it will break into minute globules. With a still heavier dose the whole cell is destroyed.

What is the reason for this? Here is one cell nucleus which has been struck by three rays. Probably that cell will be destroyed. This

other cell has been hit only by a glancing blow, and the effect is that the cell suffers from shock. It is knocked out, and for six weeks it lies just as it is. But it has power to recover, and it then begins to reproduce again. This other has been struck full, by only one ray, and its karyokinetic power is destroyed and the cell having no power of reproduction it dies of old age. Wassermann, who studied these effects, divided the nucleus into genizeptor and nutrizeptor elements, the first being the reproductive power, and the latter the vital or nutritive function.

When these electrons hit the target, there are at least two effects, one visible, the target becomes red hot; the temperature at the point of contact is stated to be 3,000°C. The other effect is invisible, i.e., the generation of rays. If we put a filter of pure copper in the way, a certain number of the rays are arrested by the copper. Copper, and any metal having an atomic weight over 27, has the power of generating secondary rays. So when these rays strike the zinc or copper, secondary rays are generated. And if I took this copper filter and put it on the skin and let the rays come through, the skin would be burned long before the primary rays had any effect. So, to destroy these secondary burning rays we place below the copper a filter of a second character, 3 mm. of aluminium, which stops the secondary rays, and allows the primary ones to go through.

The ray strikes the nucleus. We know that a cell contains phosphorus, for instance, that this is the chief mineral constituent, and that the whole of the phosphorus is in the nucleus. The atomic weight of phosphorus is 31, so it can create secondary rays. Intense heat is generated and secondary rays are thrown out, and the cell is destroyed. This is a reasonable working hypothesis. It is a fascinating glimpse into the unknown, because, under certain conditions, if you only give a small dose you stimulate growth. It is possible that by small doses you produce this heat effect, which we know can last for at least six weeks. In that way you create an incubating effect and stimulate the growth of cells. It is possible that cancer is due to some disturbance of the heat-regulating centre in the brain, or somewhere in the periphery, allowing that some incubating effect in stimulating the growth of cells.

With regard to dosage, we take a fixed distance from the target to the skin, 23 centimetres. We find that by letting the rays play on the skin at that distance through a filter of zinc and one of aluminium, for approximately 25 minutes, at the end of 3 days the skin shows a slight erythema. This is what the Germans call H.E.D., and we call the unit skin dose. We give it the nominal value of 100 per cent. All dosages are calculated on that.

It is very important, then, to know how much of that dose reaches, e.g., a depth of 10 c.m. in the body. This is what we call the "depth dose." Professor Wintz of Erlangen, the Chief of a Gynæcological Clinic and one of the great pioneers in Deep Therapy, estimated the average depth of the cervix as 10 c.m. and for this reason the depth dose came to mean the actual amount received at 10 c.m. depth, and from this tables are available, for calculating the dosage for all variations.

What is the effect of these rays on the blood? The rays with ordinary therapeutic doses have practically no effect on red blood corpuscles. This is easily understood if you remember that the chief effect of the rays is always on the nucleus, and red blood corpuscles having no nucleus, you would not expect much effect on them. And the same is true of the blood platelets. The chief effect of the rays is on the leucocytes, and of those the lymphocytes are the most susceptible of all the cells in the body. A 15 per cent. dose is sufficient to destroy these en masse. We see the best effect of this in the leukæmias. I have tried to illustrate here (slide) a case of lymphatic leukæmia. This is a case which had 150,000 before irradiation; radiation caused an immediate fall to 90,000; that is, 60,000 were actually destroyed by giving a 60 per cent. dose to the spleen. You can work out what 60,000 per c.mm. would mean for the whole body. Four hours afterwards the number rose again, which is a primary reaction, then they dropped again, to 70,000, and then to 40,000, then 30,000. On the fourth day they began to rise again. This is the secondary reaction which usually lasts 24—48 hours, and is followed by a steady decline to normal or near normal limits. The polynuclears rise in the primary reaction, fall, then rise in the secondary reaction, then fall gradually to normal.

Now follow the lymphocytes. They rise in the primary reaction, they rise in the secondary reaction, and then they gradually fall. In the myelogenous form the effect is similar. (Slide.) The myelocytes rise and fall, and finally disap-

pear altogether, and the polymorphs come down to normal, and the lymphocytes the same, so that at the end of six weeks you see a normal blood picture.

In the case of the leukæmias, the indications for further treatment are, first, fall of the r.b.c. and hæmoglobin, with a rise in the leucocytes, any marked increase in the pathological type of leucocytes, or failure of these to disappear from the blood as a result of the first irradiation. Failure of compensation as indicated by bronchitis, enlargement of the liver, dyspnœa, etc. Splenectomy is not a contra-indication, as one case under observation has done extremely well in spite of this absence, the effects being as marked as if the spleen was still present. It does not matter whether you are irradiating the toe or the finger or any other part of the body by deep therapy, you get the same effect, destruction of leucocytes.

I shall illustrate with a few cases various types of disease, to show the actual effect of deep therapy radiations.

The first is Hodgkin's disease. A fair number of cases of this condition have come under treatment. The majority had been already subjected to courses of X-ray treatment for enlarged superficial glands, and in every instance the renewed symptoms have been due to enlarged glands in the mediastinum, the abdomen or enlarged spleen. And this brings up the question whether local treatment of superficial glands is a wise procedure, or whether as a result of the suppression of growth of the superficial glands the internal glands are stimulated into greater activity. Personally, I am coming to the opinion that the superficial glands, unless greatly enlarged, should be left alone, and that the necessary general effect on the blood should be obtained by irradiating the long bones and the spleen if enlarged, and the deep glands of the body.

The patient, H. D., a clergyman. He had had radium and X-ray treatment for 26 months; they were applied for an enlarged mass of glands in the left neck, but these had been steadily getting larger. He had difficulty in breathing and speaking, so that he had to give up his ministerial work. He also complained of great pain in the lower abdomen and in the scapular region. On admission there was a large mass of glands in the left neck. Screen examination shows a mass of glands in the upper mediastinum, and abdominal examination shows a large mass of lumbar glands. The first irradiation was one year ago, and he has had three series, to the spine, abdomen, and upper chest and neck. All the masses have disappeared; his red blood corpuscles have increased from 4,100,000 to 4,700,000, hæmoglobin from 84 to 94 per cent., the leucocytes fell from 22,000 to 8,000, and all symptoms have disappeared.

Another cases is that of a clerk, who gave a history of febrile attacks for eight years, much more frequent latterly, occurring now every three months. During these attacks he is incapacitated for six weeks. During an attack the spleen enlarges. He had enlarged cervical and inguinal glands; the liver was also enlarged. The first irradiation was 15 months ago, over a wide area over the spleen; no treatment whatever to the glands. In all, he has had four irradiations, the last in May, 1924. He has had no recurrence of febrile attacks, the spleen and liver are normal, enlarged glands are just palpable. The erythrocytes have increased from 3,700,000 to 4,900,000, the hæmoglobin to 106 per cent., the leucocytes have dropped from 10,500 to 7,000, eosinophiles from 7 per cent. to 2 per cent. The patient has kept steadily at work, and he feels well.

An interesting case was done not long ago, one of splenomegaly. There was a history of an enlarged spleen for 12 years. Recently the patient has begun to lose weight, there had been a feeling of weakness, loss of appetite, a sense of depression and of weight in the abdomen, possibly due to enlargement of the spleen, which extended to the pelvis, and to 3 inches to the right of the median line. The erythrocytes were 5,720,000, hæmoglobin 85 per cent., leucocytes 22,900. First radiation six months ago. The hæmoglobin has risen to 98 per cent., the erythrocytes are now 4,920,000, the leucocytes have fallen to 4,000, the spleen has been diminished to one-third its original size, and the patient states she feels a new woman.

With regard to Addison's disease, extremely small stimulating doses to the bone marrow have been advocated, and improvement has been reported. It was tried in one very advanced case in this hospital, but no effect could be observed. With regard to stimulating doses, I recently applied irradiation to a woman aged 35 who had general weakness associated with a low hæmoglobin content. She had been under careful medical observation for three years. At no time had her hæmoglobin been above 50 per cent., varying between

45 per cent and 50 per cent. Nothing tried had had any effect. I was asked to try the effect on her of stimulating doses. Before irradiation was commenced 6 weeks ago her hæmoglobin was 48 per cent. When she came a week ago it was 63 per cent. Patient only had one small irradiation, namely, to the feet.

In continental clinics amelioration of symptoms has been claimed in cases of lobar pneumonia in the stage of consolidation. This is reasonable when you remember that in this condition the lung is packed with leucocytes, and they are very susceptible to the rays. By giving a 70 per cent. skin dose to the lung you destroy many billions of leucocytes, and so help the lung to clear. In addition to this mechanical effect, there may be a beneficial effect due to liberation of ferments, antibodies, etc. I have no experience of this myself.

With regard to acute uræmia, I saw in a Continental clinic a man with acute uræmia which had lasted 5 days, and he was in extremis; there was complete suppression of urine. He was given 75 per cent. of the skin dose to both kidneys, and in four hours he was secreting his urine normally. Naturally the effect of the ray was one of pure cell destruction, and the urine was thus allowed to secrete again. I have seen the reports of two other cases in which a similar favourable result was obtained.

We now come to a part of the subject which has been investigated better than any other, the action of the rays on the ovaries. I have told you that the reproductive or karyokinetic functions of the nucleus are easily destroyed by the rays, and this fact has been used to the best advantage in the case of the ovaries, the testes and similar organs. They are very susceptible to the rays. Various results have been obtained. The good effects are seen in cases of hypo function, as shown by amenorrhœa, or irregular and scanty menstruation. In 50 cases, reported by Flatau, there was in 38 a restoration to normal regular menstruation in three to four weeks, after a single application of only 10 per cent. of the skin dose. In connection with temporary castration one gives 27 per cent. of the unit skin dose, and the effect lasts from six months to two years. It is often given in cases of idiopathic menorrhagia, and, in tubercle clinics it is given with the object of conserving patients' strength. It is also carried out for patients who have psychic disturbance associated with and aggravated by the menstrual periods.

Permanent castration is produced by 35 per cent. of the skin dose; this dose results in destruction of the Graafian follicles, but in a period varying from six to eight years the epithelium appears to recover, and, in younger persons, normal menstruation re-commences. The chief indications for this dosage are metrorrhagia which has not been influenced by other treatments, uterine fibroids associated with menorrhagia, the artificial menopause, and in many clinics abroad every patient with carcinoma of the breast receives a castration dose of the rays, the idea being to prevent pregnancy, to conserve the strength of the patient, and to prevent the irritation of the breasts which occurs at the menstrual periods. This dose is also very frequently given at the climacteric, especially when that event is associated with marked nervous symptoms; the artificial menopause produced in this way is practically without symptoms.

Miss L. A. for three years had menorrhagia associated with fibroids of the uterus, which extended half way to the umbilicus. A prolonged course of ordinary X-rays had previously had but little effect on the condition. The first series of irradiations was commenced on the 22nd of April, 1924, and the second series in July. The hæmorrhages ceased after the first irradiation, and there has been no recurrence in the past 11 months. The last examination of the patient showed the uterus to have diminished to practically the normal size; there was then only the smallest nodule to be felt in the upper left pole.

The other patient who had a somewhat similar condition was a woman aged 47, who gave a history of menorrhagia with fibroids for $3\frac{1}{2}$ years. Operation on her was deemed impossible because of albuminuria. The uterus was found to extend half-way to the umbilicus. Shortly after her first radiation she had one normal menstrual period, lasting four days, but nothing since. There has been no discharge of any kind. Recent examination of the uterus shows it was then only slightly larger than normal, and no fibroids could be felt. The time which has elapsed since her first irradiation is 15 months.

Remember that 50 per cent. of the unit skin dose to the ovaries causes complete destruction of all the specialised cells. The ovaries receive this kind of dose in the treatment of carcinoma

of the uterus. There is no hope of future regeneration.

Lympho-sarcoma cases are extremely susceptible to the rays; but the real difficulty is that we do not know how extensive the disease is. You may destroy it in one place, but it re-appears in another, and of course it is impossible to irradiate the whole body. I will relate two cases of this—

F. G. was a case of lympho-sarcoma affecting both sides of the neck, the axillæ and the groins. He had had masses of glands beneath the angles of the jaw, on each side. He was first irradiated on October 8th, 1923, and he has remained under observation ever since. He was able to return to work after the first series, and he has since only required occasional irradiation, without having to leave off work. So he has been given to date 18 months of useful life.

J. S.'s case was a fulminating one. He had large masses in the naso-pharynx, which was pushing the palate forward, there were big masses on each side of the neck, extending to the clavicle; there was deafness, and he could not swallow solids. Also there were severe hæmorrhages, which were practicably uncontrollable. After irradiation the naso-pharynx became normal, the hæmorrahges stopped, hearing returned, and the masses of glands disappeared, after only one application. Unfortunately it was nine weeks before he was readmitted, instead of six weeks, and he then stated that the supra-clavicular glands had been growing rapidly during the last fortnight, and a week before re-admission he had had a slight hæmorrhage from the nose. He was given a second series of applications to the naso-pharynx and the neck, and was sent home. He was not seen again, but his home doctor reported that he died in April last from mediastinal involvement, the total duration of his illness having been 9 months 15 days. The naso-pharynx remained immune to the end.

With regard to tuberculosis, these rays are used extensively on the Continent for this disease, i.e., for tubercular glands, tubercular peritonitis and phthisis. The so-called tuberculosis dose is 50 per cent. of the skin erythema dose. There is no effect, of course, on the tubercle bacilli; you would have to destroy the body first. The beneficial effects are supposed to be due to stimulation of the connective tissue growth, the deleterious effects of the ferments liberated by the wholesale destruction of the leucocytes on the activity of the bacillus, and, as an end-result, the formation of scar tissue and indirect healing. The dry, nodular form of tubercular peritonitis is said to be very susceptible to the rays.

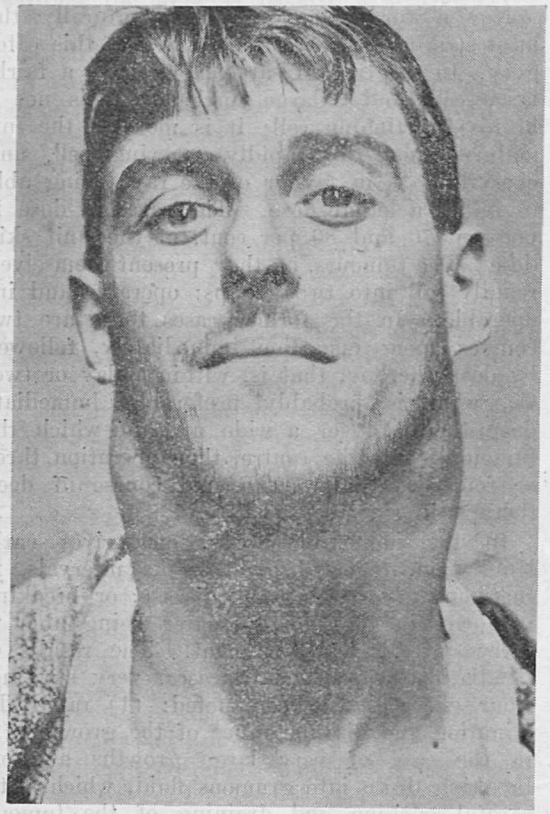
With regard to phthisis, various clinics have been established in Germany, Austria and Switzerland, for treatment by deep therapy, small doses of the rays being given at regular intervals, to stimulate scar formation, with, in many cases, resultant healing. Many successful results have been claimed in all these tubercular manifestations. But I have no experience of this.

Now a word about sarcoma. Naturally, the most striking cases we see come into this category. In the case of sarcoma we have a fairly large cell, and a large nucleus. It is not a highly-functioning cell; it is more of the immature type, the rapidly growing cell, and everything is in favour of the rays being able to inflict a lethal dose. The sarcoma dose is between 70 and 80 per cent. of the unit skin dose. The tumours, as they present themselves, readily fall into two groups: operable and inoperable. In the former cases there are two courses open; operation immediately, followed by deep therapy, that is, within a day or two. Or, what is probably preferable, immediate deep therapy over a wide area of which the tumour site is the centre, then operation, three or four days later; a second course of deep therapy in six weeks.

In the inoperable cases, one gives early irradiation, repeated at 6 weeks intervals, in the hope of arresting the disease, or breaking it down, in the hope of later being able to carry out surgical treatment. The results of irradiation are, in many cases, very striking. Four effects have been noted: (1) rapid diminution and disappearance of the growth; (2) in the case of very large growths a rapid breaking down into grumous fluid, which, after careful opening and draining of the tumour, heals in a few weeks. (3) In chondro-sarcoma there is striking relief from the agonising pain, a limitation of the further growth of the tumour, and a deposition of lime-salts in the tumour, with the formation of new bone. (4) Conversion of secondaries into firm fibrous nodules. Holzknecht, a famous Vienna Rontgen therapist, reports on a series of 152 cases of sarcoma collected from various clinics. In 31·5 per cent. of them the tumour disappeared; in 46·5 per cent. it diminished in size, and only 22 per cent. were uninfluenced by the rays, which is a very good total result.

W. C., aged 16 years, had a large mass in the left pectoralis major. It was found to

extend into the axilla and to involve the axillary vein. Extensive removal of all the masses possible was done by surgery, and this was immediately followed by deep therapy. An enlarged gland in the supra-clavicular region was separately irradiated. A second series was given 6 weeks later. The growth and the glands have entirely disappeared, and there are no evidences of further activity. It is 8 months since the irradiation, and the boy has put on a stone in weight.

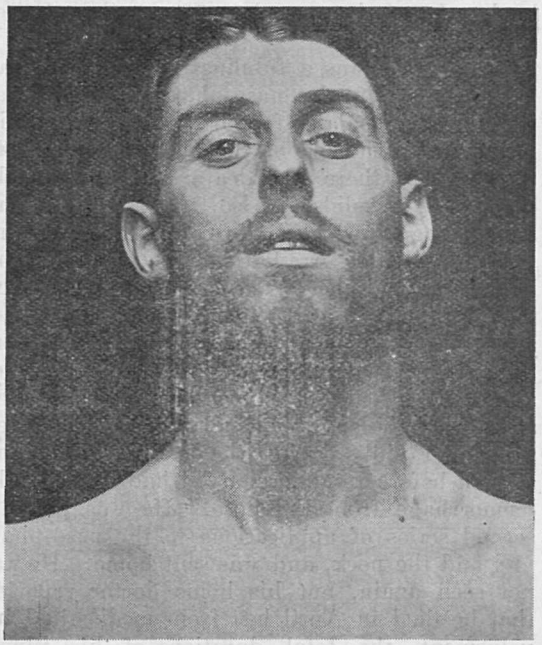


Lympho Sarcoma. No. 1.

B. G., aged 4 years, had an extensive sarcoma of the zygoma and the coronoid process. It was removed as far as possible by operation, but a considerable mass was still present. She has received three irradiations, and at present there are no evidences of disease. She is in good health, and is now attending school.

The next case is probably the most interesting one we have ever had; it was in the Victoria Ward. It is a case of pregnancy complicated by an enormous tumour, which filled the pelvis, and extended outwards to the right hip; it was the size of a Rugby football. Cæserean section was performed and the child was saved. As a last resort deep therapy was tried. Six weeks later she had a second irradiation, the mass broke down shortly afterwards, and for six weeks it discharged very freely thick grumous material. In three months it had apparently completely healed, and there was no evidence of the tumour remaining. She nursed her baby until October last year.

The breasts did not dry up properly, and remained tender, on examination there was apparently an area of mastitis in each breast. These did not clear up and a radiation was given to each breast. On her next visit the lumps had diminished and were freely movable. But it was considered wiser to have them removed, and this was done a month ago. The report on them was fibro-sarcoma, principally



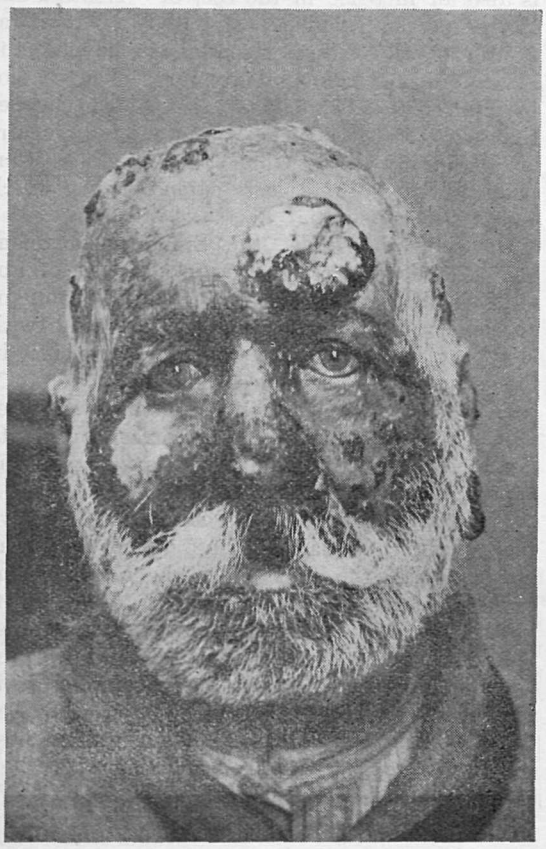
Lympho sarcoma. No. 2.

fibrous tissue. So the effect of the rays was good, they had practically destroyed the growth and converted it into fibrous tissue. She had the last irradiation a month ago. The total duration is over 11 months, and she apparently went home in good health.

W. D. had a chondro-sarcoma extending above and below Poupart's ligament. The mass extended downwards for about 8 inches. There was a severe pain extending backwards to the sacrum and down the thigh to the knees. It was the most difficult case I ever treated. The man could not lie in any position for more than a minute at a time. The first effect

of the rays was to relieve the pain, and he had no pain whatever when he came the second time. He has received four series of irradiations, the tumour has diminished in size, and he is now back at his work as a stevedore, working three days a week. The total duration is 16 months.

The next case is one of recurrent sarcoma of the fibula, in which two operations were done;



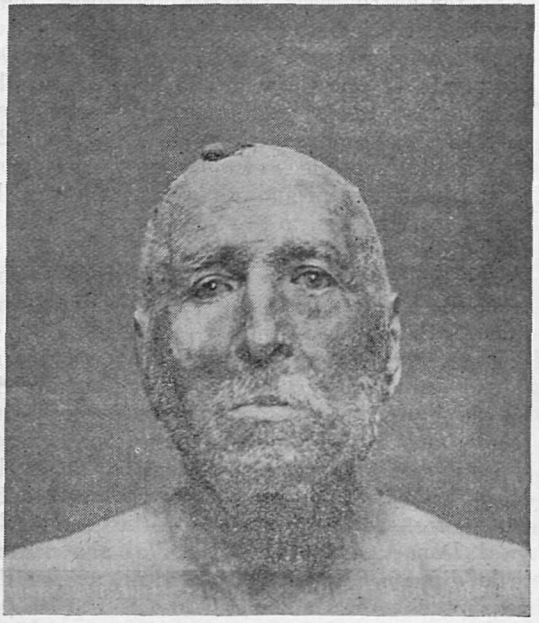
Chronic Arsenical Poisoning. No. 1.

first for removal of the head of the fibula, and part of the shaft was removed on the second occasion. It has recurred in the os calcis, extending into the tarsus. The question which arose was that of amputation. It was decided to first try deep therapy. He has received, in all, three series, and at the present time one can say there are no evidences of the sarcoma. The total duration is over 16 months.

The case of C. B. is that of excision of testis for sarcoma, which was followed, in three weeks, by recurrance in iliac and lumbar glands. A large mass of these could be felt in the lower abdomen, extending upwards beyond the umbilicus. It appeared to be a hopeless case, but he was given his first series on the 8th of July, and, as a result of a second and third series the masses have disappeared, and there are no evidences at the present time of any disease whatever. The total duration in this case is 9 months.

These photographs show the rapid effect of the rays on lympho sarcoma. The first shows the large masses of glands extending from the clavicles to the mastoid processes on both sides. The second photograph, taken two weeks later, shows that the glands have entirely disappeared.

The next show a case of chronic arsenical poisoning with large degenerative ulcers with



Chronic Arsenical Poisoning. No. 2.

raised hard edges. The second photograph, taken six weeks later, shows the ulcers to have disappeared and entirely healed.

The next is a plaster cast of what was considered to be a malignant parotid. The skin was discoloured dark bluish, and adherent. In one place the mass looked to be on the point of breaking down. There was great disfigurement. The patient received two radiations, the first 9 months ago. All evidences of the growth have disappeared, the skin is normal and the patient is in best of health.

The time has expired so I shall have to leave the consideration of cancers.

Extracts from the Annual Report of the Bacteriological Department for 1924.

Examination of Specimens.—During the year 1924 the total number of specimens examined in the Department amounted to 15,056, as compared with 12,439 in the previous year—20 per cent. increase. In analysing this difference it is found to depend upon an increase of 1,282 of specimens examined for the Hospital itself; an almost equal number (1,241) for the V.D. Clinic; and of 94 specimens for private practitioners in connection with the London County Council scheme for the control of syphilis.

So far as concerns the Hospital itself, there has been an increase in the number of specimens sent for examination from all the Departments except the Clinical Wards and the Post-mortem Room; in the former, for instance, we had 156 specimens as against 179 in 1923, whilst the specimens from the Post-mortem Room have diminished almost to the vanishing point, that is to say, we have had only 14, as against 24 in the previous year.

The increase in the number of specimens from the V.D. Clinic dates from the inauguration of the all-day clinic at the beginning of August, 1924. If this rate of increase is maintained—as there is every indication it will be—it is quite probable that the specimens from the V.D. Clinic will equal if not exceed the number of specimens received from the Hospital Wards and Out-Patient Departments.

Finance.—The gross cost of the Bacteriological Department of the Hospital shows very little difference from that of 1923, as for the year under notice it amounted to £2,263 16s.6d. as compared with £2,225. It will be noted there is a slight increase in the size of the wages list and in the cost of materials. There is also an increase in the cost of "Heating and Refrigeration," which, estimated as it is at 1/50th of the entire Hospital, is beyond the control of Departmental economy. The cost of cleaning materials, gas ($\frac{3}{4}$d. per therm cheaper than in 1923), electricity, water and repairs are definitely lower than the previous year, particularly in the last named item, which shows the substantial decrease of £87.

On the other side, the Stores Department has been debited with £77 for the cost of apparatus and materials for the collection of specimens from the Wards. Compared with last year it shows an increase of some £19 in the value of the supplies sent out.

Overhead charges debited to the V.D. Department show an increase corresponding to the increase in the number of specimens examined.

Personnel (Qualified).—There have been two changes in the qualified staff during the year under notice, the first being the advancement of Mr. J. H. Marshall Lloyd in June, 1924, to the post of Senior Assistant Bacteriologist rendered vacant by the resignation of its previous holder, Dr. Biddle, on his appointment as Pathologist and Bacteriologist to the Devonshire Hospital, Buxton. The vacant post of Junior Assistant Bacteriologist was then filled by the appointment of Mr. A. T. W. Powell.

Returns of the Bacteriological and Vaccine Department for 1924.

Total number of Specimens examined in the Bacteriological Department, classified according to the Department of the Hospital from which they were derived, during the year 1924.

Medical Wards.	Clinical Wards.	Surgical Wards.	P.M. Room.	Front Surgery & Out-Patient Department.	Dental Dept.	V.D. Clinic.	Unclassified.	Total 1924.	Total 1923.
2,182	156	1,379	14	3,846	142	6,315	1,022	15,056	12,439

Total number of Specimens examined in the Bacteriological Department during each month of the year 1924.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total 1924	Total 1923
1,268	1,147	1,354	1,044	1,274	1,049	1,210	1,265	1,287	1,310	1,499	1,349	15,056	12,439

COMPARISON OF COSTS FOR THE FIVE YEAR PERIOD, 1920—1924.

	1920	1921	1922	1923	1924
No. of Hospital Specimens	7,499	7,226	7,094	7,459	8,541
Gross Cost of Department	£2,477	£2,468	£2,510	£2,225	£2,263
Net " "	£2,115	£2,198	£1,894	£1,944	£1,728
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d
Cost per Specimen ...	0 4 0½	0 5 3¼	0 3 8	0 5 4	0 3 4½
Cost per Vaccine ...	0 12 1½	0 15 9¾	0 11 0	0 16 0	0 10 0½
Cost per Occupied Bed ...	3 19 10¼	4 1 10	3 10 10	3 13 2	3 6 3

COMPLEMENT FIXATION TESTS CARRIED OUT IN THE BACTERIOLOGICAL DEPARTMENT DURING 1924.

	Medical and Clinical.	Surgical.	Out-Patients.	Dental.	Total 1924	Total 1923
January	25	9	100	1	135	129
February	38	4	88	1	131	146
March	65	15	105	2	187	163
April	38	7	63	1	109	145
May	45	15	93	1	154	123
June	42	14	84	0	140	162
July	55	26	78	2	161	118
August	59	9	83	0	151	126
September	71	13	107	0	191	106
October	44	14	99	1	158	126
November	38	19	77	0	134	125
December	37	13	88	0	138	100
Totals ...	557	158	1,065	9	1,789	1,569

Totals ... 1924 = 1,789 1923 = 1,569 1922 = 1,521

MEDIA PREPARED DURING THE YEAR 1924.

	1924 Litres.	1923 Litres.
Meat Extract	460	273
Broth	116	36
Glucose Broth	180	42
Agar (including 234 litres converted into Blood Agar) ...	312	221
Gelatine	10	10
Nutrose Agar	104	74
Bile Salt	30	25
Glycerine Agar	8	2
Milk	60	7
Peptone Water	20	8
Sugar Media (various)	24	18
Serum	70	38
Saline Solution (normal) ..	160	100
Distilled Water	600	150
Trikesol Solution	90	50
Sabouraud's Agar	0	6
	2,244	1,060

VACCINE OUT-PATIENT DEPARTMENT.

Again there has been an increase, although slight, in the number of new cases seen in this Department—856, as against 841 in the previous year. These out-patients have totalled 279 more attendances for the twelve month period and 773 more doses of vaccines have been administered.

As was forecasted in my Report for 1923, the total number of vaccines prepared for In-Patients and Out-Patients has shown a further decrease, owing largely to the use of fewer "mixed" or "multiple" vaccines, although probably other causes have also been at work.

Vaccines to the number of 60 have been provided in 1924 for in-patients, discharged from the Hospital to the care of their medical men at home; this compares with 20 similar vaccines in 1923.

V.D. DEPARTMENT.

The year under review has seen the transformation of the V.D. Department from a part time clinic to a whole time, every-day clinic with the establishment of a pathological laboratory as an integral portion of the out-patient suite. This has involved a certain amount of re-arrangement of duties of both

qualified members of the Staff of the Bacteriological Department and of the Staff of laboratory attendants.

The cost of equipping this new laboratory is shown as a capital charge against the V.D. Department, £142, a sum which is not taken into the ordinary accounts; but apart from this it will be seen that there has been a very considerable reduction in the cost per specimen, namely, from 4s. 5¼d. in 1923 to 3s. 6d. With the prospect of the continued increase in specimens now that the Clinic is working each day of the week it is hoped that the current year will see a further reduction in the cost per specimen.

When previously referring to specimens from private practitioners I noted that there had been an increase of 94 during the year 1924, and although in many instances specimens are sent up from actual private practitioners it must be recollected that we have to include under this heading the specimens sent up by other Institutions to which V.D. Clinics are attached. For instance, out of the 1,922 specimens that are included, the Lambeth Poor Law Institution was responsible for 938, almost half the total number. When one deducts the cost of the examination of these specimens, the balance of the total expenditure for the year may be regarded as representing the cost of specimens examined in connection with our own V.D. Clinic. Estimated in this way the cost per Clinic patient is found to be 14s. 3½d.

(Signed) JNO. EYRE.

March, 1925.

The Disguysed Minstrels at the Regent Theatre, Sunday, April 19th.

CONSIDERING the present depression in the theatrical world—or, should this not be the case, considering the present boom in the theatrical world; it answers equally well either way—one might have thought that the Regent Theatre would have been nearly half empty for this culminating triumph of the Disguysed Minstrels, but one would have erred. The theatre was actually more than half full and the "house" was well repaid for its journey to the land of that mediæval ascetic, Saint Pancras. Many came from long distances, whither the fame of the Minstrels had penetrated, but none came further than one of the Minstrels, who journeyed all the way from the Pyrenees to make positively his only appearance on this stage. The four trees standing out but hazily from the purple mist of the drop scene must have brought back happy memories of mountain tops to him.

At 8.15 p.m. the approaches to the Theatre were blocked with expensive motor-cars and, as we dodged their indiscriminating wheels, we blessed the fate that had induced us to arrive before the crush began. The patrons of the stalls paid the troupe the compliment of considering them regular, down-right play-actors and arriving late, but the troupe, not to be outdone in matters of politeness, started their performance later still. Nobody minded; they just sat and chatted away and the atmosphere was as friendly as possible. Everyone seemed to know everybody else and several people we observed shaking hands with the Manager of the ticket office, while they gave him—or it may have been instead of giving him—their tickets. Lest that second and not at all creditable contingency should have been the right one, we shook the programme lady warmly by the hand in lieu of proffering the usual sixpence, but it all went wrong, and we suppose that we lack the right manner of doing these things.

A great surprise awaited us on the lifting of the curtain. The ladies of the troupe were seen to be beautifully disguysed in the Hospital colours, but the men, except for their badges, such as are worn by the men at dances, who walk round with faultless deportment telling the dancers to take their partners for the Valeta, please—except for them, they might have been just ordinary men like any of you. We do not include ourself as Saville Row is but a name to us. It transpired, through the good offices of the gentleman in the next seat, that the London County Council had gone away for the week-end with the exception of one member, who said that the Council could

not countenance the appearance of disguysed anybodies on a Sunday without first convening a meeting to discuss it. The facts may not be strictly accurate, but somehow or other the London County Council got mixed up in it and the disguysed men appeared in faultless gents.' evening wear.

The Minstrels were first seen on a raised platform at the back of the stage, the level of which they reached by descending a flight of blue stairs. This gave considerable scope for the display of stage-craft or whatever it may be that allows a single person to walk downstairs gracefully in the full stare of several hundred others.

We had the extreme privilege of being present at the first performance of the Minstrels last December and are glad to say that they have had the great good sense to retain, almost unaltered, the very successful programme that they then produced. Except for a few alterations in songs, added patter and the most remarkable improvement in the general swing of the entertainment, it was the same as they gave in December. Moreover the programme on this occasion was almost entirely in English.

After the opening chorus, Keith Woodruff and Pat O'Meara gave a rendering of their well-known duet "Pennsylvania," disguised on the programme under the title of "Comic songs." It was sufficiently comic to please the good-humoured audience and, as usual, even the most staid laughed on hearing of the chicken that had to lay because, its legs having been removed, it could no longer stand. Gladys Meagher sang the same two songs that have now been enjoyed by so many audiences, but her voice is so pure and so effortless that it is a pleasure to listen to her, however often. The "Parsons of Puddleton" were not described as comic but they undoubtedly were. Dave Whitlock would be a dangerous curate to let loose in a genteel country parish and his technique would sometimes be found a little original as when he illustrated his marriage of the village beauty to the second lieut-tooty by placing the ring on his index finger. That sort of thing may be all right for disguysed parsons in the Pyrenees, but shows want of attention to detail. Miss Emmie Joyce sang something in the nature of a problem song, in which she related some innocent but startling occurrences starting in the neighbourhood of Clapham and ending, as far as could be gathered, in the Ritz, but she was careful to explain that, though she had no idea of how we thought she spent the evening, she was positive that she had done nothing of the kind. This was really the only intellectual exercise set for the audience during the evening; it was in the nature of one of Sir John Collier's problem pictures. O. G. Morgan and Betty Eason raised the tone of the proceedings with their excellent songs, but there was a complete relapse when Lolly Forman appeared and sang about his "Garden Sub-bub." He was probably the only Minstrel who had no help from the words of his song to raise a laugh. The song is so well-known to everyone connected with Guy's, that Lolly had to rely entirely on his extraordinary expression and mannerisms to amuse the audience and the storm of applause, that was raised at the end, showed how completely he had succeeded. In his second song he performed the most difficult task of making the audience sing the chorus, the song being "Bandy Bertha," which consisted of "WHO—WHEN—HOW—WHY—WHERE!" These simple words he displayed on a large white poster and with great success conducted the magnificent choir in the auditorium. Hilda Rogers played her violin as dexterously as ever and the "Gutter Merchants" concluded the first half. One gutter merchant wore a disreputable Guy's scarf, one further proof of the necessity for burning all Club clothing as soon as it is discarded. It was during this item that Lolly Forman, most lugubrious of comedians, announced that his object in life was to be a sunbeam.

In the second half, Keith Woodruff sang three of his old favourites and gave a very finished performance of low comedy. He is, of all the troupe, the most natural performer, with an enunciation that makes every word clear without undue effort. The audience would have liked a fourth song but time was getting on and Gladys Meagher was ready to sing before the applause had died down. An encore to her song was also refused on account of time, but O. G. Morgan was allowed to add "What shall we do with a drunken sailor" to his other sea chanties. Pat O'Meara and Emmie Joyce sang two new duets, "Garden of Lies," and "Tea for Two," which proved very popular and, after more music from Hilda Rogers' violin and a greatly improved Italian Quartette, Betty Eason sang the last solo, "O Lovely Night," by far the best of the three that she gave us.

At the conclusion of the programme, the Minstrels received a great ovation and the men in charge of the curtain must have been unfaithful to their union rules. After many "curtains," Pat O'Meara made a short speech, thanking Miss Thorndike for so generously lending the Regent Theatre for the performance, the members of the Theatre Staff for their assistance and Mr. Stanley Lupino for his great help in coaching the troupe to their very high standard of entertainment. No one rose to thank the performers themselves for all their hard work and unselfishness in attaining such proficiency that they have swelled the Bicentenary Fund by several hundreds of pounds, but the applause throughout the evening showed how very sensible the audience was of their great good will and still greater success.

Correspondence.

In Memoriam.

SIR,—Will you forgive me for expressing surprise that no notice of the death of Dr. Arthur Joseph Eagleton (née Smith) has found its way into *our* GAZETTE. He died at Newark, New Jersey, on the 20th March, 1925, from diphtheria, preceded by pneumonia. It is peculiarly pathetic that this disease, which he had studied so earnestly and from which he had saved so many, should have carried him off.

He was a brilliant student of "ours," a hard and conscientious worker, a grand, modest soldier during the war, an accomplished bacteriologist and a lovable man. I knew and attended him as a boy and feel that our profession, and indeed the world, are the poorer for his passing.

He was 35 years of age. He leaves a widow, a widowed mother, a sister and brother to mourn his loss, as well as a wide circle of friends of which I have the honour to be one. I have honour to be, Sir, yours obediently,

W. CULVER JAMES,
(Surgeon-Colonel).

The Old Vicarage,
Cadmore End, High Wycombe.
12th April, 1925.

[We thank Colonel Culver James for this short appreciation of the late Dr. A. J. Eagleton, to whose bereaved relations we offer our sincerest sympathy. It is often only by such letters that we become acquainted with the news of deaths of Guy's men, and, though we always hope that there will be no deaths to record, we are always grateful for such letters whenever the sad occasion for them arises.—ED.]

A Reprimand.

DEAR SIR,—In your issue of January 31st, you published a Cross-Word Puzzle of which No. 51 horizontal is a pathological organism found in water snails (two words).

This was obviously our old friend Bilharzia, but how to fit him into the spaces I could not discover. I blush to see that you did this by (1) spelling him wrong—SchistosTomum, and (2) giving him a feminine adjective Japonica.

The creature's proper name is SCHISTOSOMUM JAPONICUM (or alternatively SCHISTOSOMA JAPONICUM).

I hate to correct an Editor, but if you devise a scientific puzzle, you should take care to be scientific.—Yours faithfully,

GEOFFREY DUNDERDALE.

P. S.—S. Hæmatobium is endemic in Natal, which may serve as an excuse for my pedantry.

280, Burger Street,
Pietermaritzburg, Natal.
14th March, 1925.

[This is a great blow. We had always understood that little misdemeanours like this were overlooked, in an Editor, or alternately that they were not discovered. We justify our action by the fact that the slight error undoubtedly enhanced the difficulty of the puzzle and thereby brought added pleasure to our many cross-word puzzlers.—ED.]

Guy's Hospital Bicentenary Appeal.

The Disguysed Minstrels' Performance at the Regent Theatre.

THE Editor has given a description of this performance elsewhere in the GAZETTE. It is early yet to state how much was raised on this occasion, but it is somewhere between £170 and £180. This is a most creditable result and the Minstrels are to be heartily congratulated.

Although we are very grateful to Miss Sybil Thorndike for the kind loan of the theatre, the Appeal Committee desire to express their thanks to many other kind helpers. Mr. T. J. Kealy, the General Manager of the Regent Theatre, gave us all the help he possibly could. The excellent arrangements at the Theatre, where everything was placed entirely at our disposal, were all due to Mr. Kealy. He gave us with a wonderful willingness and sincerity all the spare time he could afford, to make certain that the Theatre should give us every assistance, and splendidly they did assist us! Prominent amongst the Theatre Staff, who so generously gave us of their time entirely on behalf of the Hospital, were Mr. Foulds and his Orchestra, whose playing added greatly to the success of the entertainment, Mr. Forsyth, the Stage Manager, who was so splendid in all the arrangements of the lights and stage setting, and Mr. Holland, of the Box Office, whose kindly help added greatly to our takings on the night.

Amongst others who should be mentioned were the Bar Attendants, Programme Sellers and Stage Hands.

It may not be known that the Minstrels are particularly grateful to Mr. Stanley Lupino. Although Mr. Lupino was ill he rendered them a very great service by working in all the time he could to rehearsing the Minstrels for this performance. A large London Theatre is a very different place to the small concert hall the Minstrels are used to and we are proud to own that a large percentage of the success was due to Mr. Lupino's work. He gave up two complete evenings to rehearsals before the night and on Sunday he was at the Theatre by midday arranging all the grouping and lighting. In thanking Mr. Stanley Lupino for his valuable help at rehearsals and on the night, one must not forget Dr. D. J. P. O'Meara, the real producer of the Minstrels, who has worked long and hard to achieve a successful result.

We are also indebted to Messrs. Murdoch's, "The Great Piano House," of Oxford Street, for the kind loan of the Spenser Grand Piano.

The Hospital should feel proud of all this kind help. For so many to give up their time on a Sunday entirely to help the Hospital's great cause is an occasion which the Hospital cannot pass by without special mention.

The Treasurer and Governors are deeply appreciative of all this support to Guy's. It shows the name of Guy's is loved and respected, and it is a befitting answer to the London County Council who could not allow the Pierrots to wear their costumes and to other obstructionists who do not approve of all this wonderful help and enthusiasm in aid of the greatest cause charity knows, because it was on a Sunday evening.

Charity on a Sunday.

The Disguysed Minstrel performance opened up the question as to whether charitable entertainments should be given on a Sunday or not. In view of many letters and complaints expressing severe disapproval of this performance, the Rev. A. G. Harris, Acting Chaplain to Guy's Hospital, has sent the following letter :—

Guy's Hospital,
London, S.E.1.
April 18th, 1925.

Dear Sir,

Your last issue contains the statement that objections had been received to the holding

of the Disguysed Minstrels performance on a Sunday evening. This morning the Secretary of the Bicentenary Appeal informs me that such objections have since been multiplying both in correspondence and in personal interviews. I therefore feel that it is only fair to the Minstrels to acquaint your readers with the following facts. The organisers of the Concert had the great courtesy to ask my opinion some time ago about the propriety of giving the performance on Sunday night and mentioned that Palm Sunday night would suit the artistes best. I replied that I thought they would be unwise to choose that night, the first night of Holy Week, because such a choice would give real grounds of offence to a number of people whose feelings deserved consideration. At some inconvenience to themselves the Minstrels were good enough to abandon the proposal and to choose a Sunday after Easter, and any support I can give them in justifying their action is unreservedly at their disposal. It is positively amazing to find that people calling themselves Christians are still committing those sins of Sabbatarianism for which Christ denounced the Pharisees so roundly. Sunday is not the Sabbath (though many people persist in calling it so), but even if it were we claim our right to heal the sick, and the activities of the Bicentenary Appeal Committee are an integral part of that process, on the Sabbath Day. St. Matthew, St. Mark, St. Luke and St. John are on our side in this matter, so we do not care much about one or two antiquated societies which have seen in the action of everyone at the Regent Theatre, from Miss Sibyl Thorndike to the stage-doorkeeper, who refuses to touch a penny, merely a chance of keeping their obsolete end up.

Religion in this country has suffered enormously from the travesty of Christianity which thousands of people of all classes of society have been told is the genuine article. It is really a little too much when the name of the Great Physician Himself is invoked to bolster up a prejudice against a charitable performance in aid of the sick poor at an hour after every Church and Chapel in London has been closed for the night.

If those who are jealous for the honour of Sunday want work, let them pay attention to people who rise unconscionably late, eat an enormous luncheon and glorify God by lethargic slacking for the rest of the day. Perhaps they will not need to look far for such people.

I have always found that there are quite enough real sins to steer clear of in life, without any necessity for the manufacture of imaginary ones.

I am, Sir,

Yours obediently,

ALFRED G. HARRIS,

Acting Chaplain.

We are grateful to Mr. Harris for this letter, and we think it very adequately explains the Minstrels' point of view.

Blues Committee.

The Winter Meeting of the Blues Committee will be held in Room 28, in the College, at 12 noon, on Tuesday, 5th May, 1925.

Recommendations for the award of Blues and Half-Blues must be in my hands not later than 12 noon on Saturday, 2nd May.

JOHN SIMONS,

Hon. Sec., Blues Committee.

Papers by Guy's Men.

W. M. Mollison, M.Ch. Atrophic Rhinitis treated by the Implantation of a Piece of Rib Cartilage.—Proc. Roy. Soc. Med. 1925, xviii, Sec. Laryngology, p. 22.

Appointment.

A. T. W. Powell, M.B., B.S., D.P.H., Assistant M.O.H. West Suffolk County Council.

How to be Ill out of Income: Dr. Draidge's Amazing Offer.

(*Scene—The Consulting Room of* Dr. DRAIDGE, T.B., Bermondsey, L.S.D. Monte Carlo.)

Dr. DRAIDGE: Good morning, Mr. Everyman, I'm sorry to see you looking so well this morning.

Mr. EVERYMAN: To tell the truth, Doctor, that's just the trouble. I am by profession a Dentist, and I'm sure that you, as a medical man, will appreciate what long hours, hard work, and microscopical pay will do for a man.

Dr. DRAIDGE: I feel for you, Mr. Everyman, most deeply.

Mr. EVERYMAN: Worthy man! But to continue —Mrs. Everyman and I have had such wretchedly good health of recent years, that life has become unbearable. However, happening to do a couple of fillings yesterday afternoon, I decided we could at last afford the luxury of being ill; so, seeing your advertisement, we decided to come along and see what you could do for us.

Dr. DRAIDGE: And I am very glad you have come, Mr. Everyman; my motto is "Ulcers for all, and let the best man win," in other words, I am anxious to do all I can to please my patients, or failing that, kill 'em.

Mr. EVERYMAN: Very larged-minded and generous, I'm sure, Doctor Draidge. Mrs. Everyman and I have been round your surgery, ably escorted by a most courteous nurse, and have much admired all the lovely specimens set out. A propos of your motto about ulcers, I have chosen one of those jolly little fellows, with a wash-leather base; my wife is in ecstasies over a renal calculus, and there's a rickety shin bone there that will just suit our baby.

Dr. DRAIDGE: I am delighted to hear it, Mr. Everyman; I admire your foresight and discretion in choosing such excellent diseases. Now how about terms; let me hear what suits you.

Mr. EVERYMAN: I can afford to pay—well you know, Dr. Draidge, I hardly dare mention such a paltry amount; but I think I can afford 100 guineas now and 10s. a week for life. How will that suit?

Dr. DRAIDGE: Admirably, Mr. Everyman; I'll give you a receipt right now; when would you like me to call?

Mr. EVERYMAN (to Mrs. Everyman): When shall we say, dear?

Mrs. EVERYMAN: Oh, Doctor, I feel I cannot wait; my kidneys positively itch for a lesion of some kind.

Dr. DRAIDGE: Well spoken, Mrs. Everyman—shall we say in two days' time then?

Mrs. EVERYMAN: Oh, Doctor, you are really just too obliging.

Mr. EVERYMAN: I second Mrs. Everyman; but there is, however, another small difficulty, Dr. Draidge: I hate inquisitive people; don't you? and our next-door neighbours—

Dr. DRAIDGE: Pray set your mind at rest, Mr. Everyman. I shall come in a plain Ford touring car with oil lamps, and unless you tell them yourself, no one will know.

Mr. EVERYMAN: Really, this seems too good to be true, Doctor, you seem to have foreseen everything. Now about references —there's a bookmaker—

Dr. DRAIDGE: Mr. Everyman, I positively do not require them; further you will receive a free life policy, and my nurses will roll all lint and bandages free.

Mr. and Mrs. EVERYMAN (together): How wonderful, Dr. Draidge; we shall remember this day as long as we live, and shall never cease to recommend our friends to be ill in the "Draidge way."

(*Dr. Draidge's Advertisements are all based on actual conversations and incidents.*)

The Draidge way of being ill out of income is simply this: You call at his surgery, select all the guaranteed ailments required—a single disease or a whole McEwen full—pay the first agreed instalment and recovery follows in due course. No references are required and no interest is charged. In unforeseen happenings, death, etc., etc., you may rely on the most generous treatment, a framed and illuminated autopsy report being presented to the next of kin.

JACOBUS.

Danish Burial Ground at London Bridge.

THE following account was recently sent to the GAZETTE. It originally appeared in a letter addressed to the *Times*, and is reproduced as of local interest to members of the Hospital :—

Of the many thousands of passengers to and fro by the London Bridge Stations, how many realise when passing over the Approach that they are treading over a long-disused burial ground or skirting one of London's once famous oratories? Such, however, is the case.

During the Danish occupation of London, about A.D. 900—1000, there was laid out a burial ground which stood a little to the east of old Borough High Street, and about 200 feet south of St. Olave's Church. It measured roughly 120 feet long by 100 feet wide. It was distinct from St. Olave's Church and its graveyard, which were founded before the Norman Conquest, presumably in honour of St. Olaf, King of Norway. The church was handed over to the Monks of Cluny by William de Warenne, second Earl of Surrey, who had rights over it. When the approaches to the new London Bridge were laid out, about the year 1830, the Danish burial ground was done away with and the surface of the ground raised approximately 20 ft above the level of old Tooley Street. The actual site of this enclosure touches the eastern corner of the triangular block of buildings known as Findlater's Corner, at London Bridge Station Approach.

It may be of interest to observe that an oratory owned by the Prior of Lewes was erected by William de Warenne shortly after the Norman Conquest, to the north of the Danish burial ground and under the present site of Duke Street. It consisted of a Norman voluted chamber, together with apartments for the resident monks. The burial ground and oratory were connected with old Tooley Street by a narrow passage, afterwards known as Churchyard Passage, which was opposite a free landing-way giving access to the river. The oratory was partly demolished by Henry VIII., and the first Queen Elizabeth Grammar School of the district was built on its foundations by the churchwardens of "St. Olyve's" Church in 1561, in accordance with the will of Henry Leeke, who was buried in the graveyard behind St. Olave's Church.

Harold I. (the illegitimate son of Canute) claimed the Throne of England in 1035, in opposition to Hardicanute, the legitimate son, and in 1037 was definitely elected King, but died in 1040, and was buried in Westminster Abbey. When Hardicanute arrived in England from Denmark he disinterred the body of Harold, decapitated it, and threw the remains into the Thames, whence it floated down the river, being watched for by adherents to the late King. The headless body was supposed to have been landed near St. Olave's Church. In view of the various circumstances, if it was washed ashore at this point, it is very unlikely that the body will be found in the graveyard behind the church, now about to be demolished. Access could only be obtained to the graveyard by carrying the body along Tooley Street and passing through the church building, whereas a more secret way would be to convey it across Tooley Street and along the passage opposite, and inter it in the Danish burial ground, which would be done without observation; but as this burial ground was abolished in 1830 there is now little hope of finding the remains of its Royal occupant.

ROBERT J. ANGEL, M.Inst.C.E.

Town Hall, Spa Road, Bermondsey.

Publications Received.

The British Medical Journal, The St. Mary's Hospital Gazette, The Navy, The Nursing Times, The Indian Medical Record, The Magazine of the London Royal Free Hospital School of Medicine for Women, The University College Hospital Magazine, The Journal of the Architectural Association, The Journal of Clinical Research.

Sport.

Guy's Hospital Swimming Club.

Prospectus for 1925.

THE Swimming season being at hand, it behoves us to sum up the prospects of the Club this summer (if any), and to set them down for the perusal of the long-suffering readers of the GAZETTE.

In the first place, we are in deep mourning for John Simons, who was our captain, mainstay, and Father Confessor last season. He has seen fit to discontinue his active participation in our pursuits, remaining obdurate in face of all our arguments and entreaties, and he now sends us mesages of advice and cheer from the Olympic heights of Vice-Presidency.

Apart from this, we have left four members of our last season's team—S. E. Theis (who is now captain), J. W. H. Jones, R. W. Stephenson, and C. E. M. de Gruchy. L. Brown is uncertain whether he will be available.

S. E. Theis, at centre-forward, has always been a very sound and dependable player. Moreover, and this is an essential part of a forward's equipment, he is always producing new methods of tricking the opposing goalkeeper. J. W. H. Jones, on the left wing, only wants experience to develop into one of the best forwards the Hospital has turned out. He is very fast and fit, and he has a very good long-arm shot, which keeps low. He needs practice with his back-flip.

R. W. Stephenson last year was our goalkeeper, a position which is always a thankless one, as, being the last line of defence, it is extremely responsible, and as it entails keeping still for a considerable part of the time, which is not too pleasant even in the warmest water. Stephenson is quite up to standard in goal, and, on one day at least, he played a most astonishing game, when he could do nothing wrong. He will probably play back this season.

Outside the team there are a number of enthusiasts who may be counted upon in the future. C. D. Malone was on the verge of the team last season, and this year may be found in it at back or forward. H. Girling has come to us from Cambridge, and there are several more. Guy's are running a second team this year, so that those who do not get into the first will have opportunities of improving their play.

As to swimming, we should do very well, for we have only lost two men from last year, Dingle and Tucker.

S. E. Theis and C. D. Malone swam the quarter-mile last year, but it is hoped that the latter's speed will improve, and enable him to swim the hundred yards with Jones, who is very good at anything up to that distance. H. Daplyn will take Malone's place in the quarter. He is a newcomer who has brought a good reputation with him.

A. R. Marsh is, unfortunately, not often available; he is an all-round man, for he plays polo, swims the fifty yards, and dives.

Another swimmer has to be found for the short distance. We are lucky in having two or three good men to choose from.

We are well provided for as regards diving. We shall have to search for a long time before we find anybody as good as Marsh. He was unlucky to lose the event last year at the Bath Club. J. D. S. Thomas is the other diver.

The team will take part—an important part, we hope—in the Inter-Hospitals and University of London Cup Matches. Last year we won the polo and swimming cups in both. We are also entered for Sandown open polo competition which, too, we won last year.

Our prospects are pretty bright. In spite of the fact that we have lost John Simons, we should be quite strong, and, what is more, a spirit of keenness and enthusiasm pervades the whole club. We hear awful rumours about supermen who have foolishly chosen to go to other hospitals, but we pass on our ways untroubled. We know that one man cannot carry a team along by himself, although he may improve it considerably. Combination is the foundation of a good polo team. Let us forthwith learn to combine!

C. E. M. DE GRUCHY.

Guy's Hospital Athletic Club.

THE Annual Sports will be held on Thursday, the 21st May, at the Clubs' Union Ground, at Honor Oak Park. A very good opportunity to get into training is available in the form of a fixture with Brighton College on Saturday, May 2nd, at Brighton.

Full details are on the notice board, and it will be most helpful if all who are desirous of taking part will write their names on the list provided as soon as possible so that the necessary trials can be held.

Hospital Information, etc.

Guy's Hospital Gazette.

A FEW bound volumes of the Guy's Hospital Gazette, in light or dark blue, are for sale at 10s. 6d. per volume. These comprise the following years:—

Light Blue.—1896, 1897, 1898, 1899, 1903, 1904, 1905, 1908, 1909, 1910, 1911, 1914, 1915, 1916, 1917, 1919.

Dark Blue.—1897, 1898, 1900, 1901, 1903, 1904 1907, 1908, 1910, 1911, 1912, 1913, 1914, 1915, 1918, 1919, 1920, 1921. 1922.

All readers, wishing to secure any of the surplus stock, must apply immediately to The Wills Librarian, Guy's Hospital, S.E.1., as it will be impossible to supply back numbers after the above stock has been disposed of.

Change of Address.

Miss Veronica M. Gillespie, British Government Hospital, Lagos, Nigeria.

C. H. Brangwin, Highbury Warre Avenue, Ramsgate.

A. T. W. Powell, Shire Hall, Bury St. Edmunds.

P. G. McEvedy, M.B., F.R.C.S., The Gables, Chester Road, Stretford, Manchester.

C. S. Neame, L.D.S., Greenhayes, Palmerston Rd., Buckhurst Hill, Essex.

Wm. Carling, M.B., B.Ch., "Rose Lawn," Portland Road, East Grinstead.

Wm. Russell Carling, M.A., M.B., B.Ch., "Normandy," Alton, Hants.

Bertram Soper, Pinetown, Natal, S. Africa.

Notice.

Junior Guyite Club,

IT is now fifty years ago since the Junior Guyite Club was formed by a handful of loyal and enthusiastic Guy's men, and it has come to our notice that the Club is celebrating its 50th Anniversary very shortly.

It gives us great pleasure to report this as it definitely shows that good-fellowship among Guy's men has always been a prominent feature.

The list of members appears to be a very large one and we understand that the Club is steadily increasing its numbers. All Guy's men are eligible for membership and those desirous of joining the circle should apply to the Honorary Secretary, Dr. J. G. Porter Phillips of Bethlem Royal Hospital, S.E.1, who will be pleased to supply particulars.

The Anniversary Dinner will be held at Oddenino's Restaurant, 56, Regent Street, W.1, on Thursday, the 4th June, 1925.

All regular members will be notified.

Vacant Appointment.

Applications are invited for the posts of two Student Demonstrators of Dental Histology (May—July 1925) and should be left in the Medical School Office, not later than Friday May 1st, at 5 p.m.

T. B. JOHNSTON, *Dean*.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Marriage.

MILLS—GERRARD.—At Holy Trinity Church, Cape Town, South Africa, on 30th March, 1925, Rupert Ball Mills, third son of Mrs. F. W. Mills and the late Mr. F. W. Mills, Cape Town, to Caroline, only daughter of Mr. and Mrs. Richard Gerrard, of Wolverton, Bucks.

Deaths.

LEIGH.—On April 10th, 1925, Wm. Watkin Leigh, M.R.C.S., L.R.C.P., L.M.S.S.A., at Llansannor House, near Cowbridge, Glamorgan, suddenly in his 71st year.

RAKE.—On April 10th, 1925, at a Nursing Home, in Bournemouth, Herbert Vaughan Rake, M.R.C.S., L.S.A., of The Old House, Fordingbridge, Hampshire, aged 60 years.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

THIS is our Publishers' Special Number. In it is much writing on books and their authors. The object is for the publishers to lay before you their latest and choicest stocks of medical literature, that you may buy, read, mark, learn, inwardly digest, and finally re-sell them. The treatment of books by their owners varies as much as the owners themselves, and, if we were a character reader, we would ask to see, not our clients' palms, but their libraries. Some possess no books at all, any that they have on their shelves being long past the "second-hand" stage, and these are either borrowed from friends or hired from dealers. Others have vast quantities of books, filling shelves and cupboards and rising in high piles from the floor, and these, most personal and agreeable furniture for a "den," may be largely unread. But in the book-lover's library, in contrast to the library-lover's books, each volume will show signs of use, of having been read again and again. The pages will be cut, small pieces of paper will mark favourite passages and occasionally the cover will show signs of the damage that it sustained, when it fell from the reader's knee as he himself fell off to sleep. There is something in the character of a favourite book that is a constant source of pleasure. The very look and feel of it calls up memories of winter evenings spent by the fireside with slippers and a pipe, "at home" to the large circle of friends who flock down from the book shelves. Or it may conjure up memories of a summer day in the country, where, lying prone in the long, river-side grass, the heat from the unclouded sun and the mingled songs of many skylarks, gradually induced sleep that left the tale, begun by reading, to be finished in the memory. Human companionship is necessary to all normally constituted men and women, but it only serves to enhance the joy, and sometimes relief, of collecting up a few well-chosen books and shunning it for a short while. Whether it will be possible to gain as much pleasure from any of the books reviewed in this number is very doubtful, but they form a necessary part of one's library, a means to great learning with which to appreciate the other part, and, we hope, to some wealth with which to purchase it.

▭

ON April 20th Mr. G. Bellingham-Smith gave his last teaching round in Queen Victoria Ward, accompanied by a large number of students and many of his old house-surgeons. On the following day a farewell dinner was held in the College, terminating in a musical "send-off" with massed drums. By Mr. Bellingham-Smith's retiral from the active staff, Guy's loses one of her most skilful surgeons, the speed of whose work has always been a source of wonder to successive generations of "firms." Without any appearance of hurrying, his operations were always completed in a surprisingly

short time, and to this speed has always been largely attributed the quick recovery of enfeebled patients from drastic operations. Now that he has given up hospital work, Mr. Bellingham-Smith will doubtless devote more time to those branches of art of which he is an authority, and we voice the wishes of the entire Hospital in hoping that he will have a long life and great good health in which to enjoy them.

THE Inter-Hospital Boat Race will be rowed at Putney on Friday, May 22nd, about 3.40 p.m. The course is from Hammersmith Bridge to the University Stone, Putney. Bart.'s have a strong eight in training and a close race is anticipated. The race for Junior Fours will be rowed on the same day. Arrangements are being made for launches to follow the races, and application for tickets for these launches should be made as soon as possible to E. T. Clifton or E. C. Huddy.

The Eight will want all the support it can get and the presence of a good crowd of supporters does much to spur on the crews. The Senior Cup has been held by Guy's since 1921. The Junior Cup came back to Guy's last year.

Rugby Football Club.

THE Annual Dinner of the Rugby Football Club will be held at the Imperial Restaurant (Oddenino's), Tuesday, May 19th, at 7 o'clock. Dinner at 7.30.

The committee hope that as many as possible will attend the Dinner in order that it may be a success.

Tickets, price 8s. 6d., may be obtained from the Honorary Secretary.

Obituary.

Arthur Joseph Eagleton, M.D., M.R.C.P.

THE many friends of Dr. Arthur Joseph Eagleton will regret to hear of his death recently at Newark, U.S.A., at the early age of 34.

Dr. Eagleton went from Rugby to Guy's. He became Pathological Assistant to the Surgical Registrar in 1913 and was awarded the Golding-Bird Gold Medal for Bacteriology. While holding a house appointment at Guy's in August, 1914, he volunteered on the first day of the War and received a commission a few days later when he went to France. He became Bacteriologist to the Third General Hospital, B.E.F., and was also in the Fifteenth Field Ambulance. Later, he became a C.S.F. Specialist in one area in England, publishing an article on the occurrence of meningococci in the air of army huts. After the War he took charge of the Bacteriological Department of the Wellcome Physiological Research Laboratories, where he remained until 1923, when, finding it necessary to avoid the winter in England, he went as Bacteriologist to the Newark Eye and Ear Hospital, Newark, U.S.A. Prior to his departure he had been Secretary to the Pathological Section of the Royal Society of Medicine.

He published several papers giving the results of his careful investigations into methods of standardisation of tuberculin, on the Schick test and active immunisation against diphtheria, and into the virulence of diphtheria bacilli. His work, particularly in connection with the standardisation of tuberculin and the virulence of diphtheria bacilli, had already placed him amongst the most promising of the younger group of pathologists. In America he had commenced a lengthy series of well-planned observations and experiments on the diagnosis and treatment of ophthalmic tubercular conditions and on protein sensitisation and had carried the investigation far despite the handicap of considerable ill-health. His premature death deprives pathology of a keen worker of careful judgment who promised to make further contributions of great value to bacteriology.

His unselfish kindliness, sincerity, and his high personal ideals gained him the affectionate regard of his colleagues and of those who worked under him. He will be missed by a large circle of friends.

Locke, The Philosopher, and the Education of Children.

An Address at "a Social Evening" at the Royal Society of Medicine,
by H. C. CAMERON, M.D., F.R.C.P.

IT is told of a Scottish divine, a renowned and eloquent preacher of sermons that one day, as he preached, his eye constantly lit upon the face of his gardener's little boy, who appeared to be following every word of his discourse with the most sedulous attention. The Minister was so gratified by conduct which he felt was unusual in one so young that he could not refrain from commenting on it to the boy's father. He said how pleased he was to have noted the reverential and attentive attitude of little David throughout the service. "Ah," said the father, "Ye see, he was well threatened before ever he went in." Now I confess that in two ways this little story is helpful to me, standing very diffidently before you as I do to address you for the space of one half hour upon so intricate a subject as "Locke, the Philosopher, and the Education of Children." In the first place, Mr. President, it encourages in me the hope that this distinguished audience, sitting as it does under the immediate observation of your Presidential eye, will be stimulated thereby to accord to me an equal show of attention, and in the second place the story serves to illustrate the one basic virtue which all of us must possess if we are to be successful in dealing with young children. I call your attention to the superb self-confidence of this parent. He never doubts for an instant that all he has to do in order to secure a display of supremely good behaviour on the part of the child is to redouble his appeals, his expostulations, his threats. When Admiral Lord Fisher told the company that he was about to retire from the sea and take to rose-growing, the midshipman's answer was "They'll damn well have to grow sir." Most of us, lacking this Fisher touch, less well endowed with this helpful spirit of self confidence, are apt to find the response made by our children to the traction we exert upon them less satisfactory. To shepherd them in one direction determines a rush in the other, to forbid seems but to awaken desire, to insist only to arouse new forces of resistance. It is his understanding of these difficulties that should endear our old bachelor philosopher of the 17th century to despondent parents of the 20th. Amid all the activities of his wonderful life, he found leisure to dip his quill in the inkhorn and to put upon paper a picture of the child as he is for all time.

No other member of our profession has approached Locke in the wealth of his contributions to philosophy and to practical politics. Of the "Essay on the Human Understanding" I need not speak. Locke's position as a philosopher stands secure. In practical affairs he was almost equally great. It was he who restored the finances of this country after the Restoration and exposed the fallacy of deflation. In the foundation of the Bank of England he played a chief part. He was the author of highly beneficial reforms in the whole Poor Law system. It is probable that he, the author of the famous Epistle on Toleration was largely responsible for the Constitution of Carolina, wherein first in any State it was enacted that no man might be penalised for worshipping God according to the dictates of his own conscience.

When we clinicians are called upon to take a lower place than those scientists upon whose researches we are so dependent, I think upon what Dugald Stewart said of Locke:—

"No science could have been chosen more happily calculated than medicine to prepare such a mind for the prosecution of those speculations which have immortalised his name. The complicated and fugitive and often equivocal phenomena of disease, requiring in the observer a far greater proportion of discriminating sagacity than those of physics strictly so called, resemble in this respect much more nearly the phenomena about which metaphysics, ethics and politics are concerned."

But Locke's association with medicine was not merely preparatory to other and greater work. Throughout his life he remained an ardent practitioner of the art, and the intimate friend and disciple of Sydenham.

It is clear that his patients reaped the benefit of his subtle understanding. He was the family physician of the first Lord Ashley, Dryden's Achitophel, a member of the cabinet which gave rise to the first cross-word puzzle—the infamous Cabal. The careful notes which he

made of his patron's long illness are still preserved. For many years Ashley had suffered from a painful abdominal swelling.

"My Lord Ashley," wrote the all seeing Pepys, on June 19th, 1668, "is like to die, having some imposthume in his breast, that he hath been fain to cut into his body." In other words Locke had determined to act. Sterilising the skin by a free application of the Cautery he opened the abdominal swelling and drained a hydratid cyst of the liver, keeping the aperture open by means of a silver tube. For 3 months he himself dressed the wound, two or three times a day. Then came a difficult question, should the tube be removed or permanently retained? Locke wrote simultaneously to seek the opinion of Sir George Ent, Dr. Glisson, Dr. Micklethwaite, Dr. Timothy Clarke and Dr. Sydenham, great names. In the end it was retained throughout life. In the political strife of the day Ashley's tube took the place of Mr. Gladstone's tree felling, or Mr. Ramsay Macdonald's motor car as a subject on which the feeblest wit of the opposite faction might feel pretty sure of being rewarded with a laugh. Duke, a pitiable imitator of Dryden, bewails its failure "to give the treason vent." Carryl, another such, that "The silver pipe is no sufficient drain, for the corruption of this little man." Great fun over the silver tube, but the tube kept him alive to appreciate the joke.

When a man such as Locke, a great philosopher, a great economist, a great social reformer and a great physician, turns to the intimate study of the child and his education, the result can hardly fail to be interesting. The book, "Some Thoughts concerning Education" had a commanding success. My little copy is dated 1745 and it is the eleventh edition. Invested with all the genius of Rousseau much of its teaching reappeared in "Emile." It is interesting to compare the two books. Locke's work is almost devoid of feeling, cold and what we call practical. Rousseau's full of extravagance and straining after paradox, yet pulsates with enthusiasm and fire as he proclaims his conviction that the ministry of the school room is no less sacred than that of the altar. Nevertheless, it is to Locke rather than to Rousseau that those of us who to-day find our children a little difficult may turn for guidance and help.

To many of you the book is well known. To those who do not know it, I think I can best illustrate Locke's method by examining a little in detail his treatment of two difficulties commonly encountered in the management of children—firstly, what I may call the difficulty of the crying child, and secondly, the difficulty of the boy, who, in the oft reiterated words of the school report, "will not attend, could do better, lacks concentration."

First then as to the crying of children. Crying, as Locke explains, is of several sorts, but that which is most common is what he calls "the stomachful" cry, that is to say the cry purposive, purposive because it is an attempt to disturb and to dominate the parent. In general, indeed, it will be found that the parents of children who cry most are precisely those who are most distressed by the cry and who are least able to hide from the culprit his power to disturb. It is astonishing with what certainty the clever dominating child will pick out the weak points in his mother's armour. Once he has found where she is most vulnerable, he seems impelled to keep on exploiting his advantage. He is like the insane person in this, that he seems impelled to wound most those whom he loves most and those on whom he is most dependent. Let me give some examples of what I mean. Of one child of sensitive and artistic parents it was complained that although in all other respects a charming child, she had lately developed a most unhealthy interest in everything that was gruesome, in blood, in murder and in sudden death. As the mother told me of this misfortune, the child entered the room. She had extracted from a locked bookcase in my waiting room a book upon skin diseases, by a distinguished Fellow of this Society, profusely illustrated in colour. Having selected her picture she sat down beside her mother to await events. At first she was not observed. Her mother was too occupied talking to me, so that the book with its gruesome illustration had to be pushed forward two or three times into a little more prominence. Then with a cry the mother discovered it, "Darling, what have you got there." Here then was striking confirmation of the mother's complaint, yet as one watched it was clear that the interest of the child was not in the picture, but in provoking the mother's emotion.

Again, a little boy was brought by his mother with the complaint that he had apparently a rooted antipathy towards religion. I said, "What do you mean? he is five years old."

"Well," said the mother, "all I can say is that whenever he is crossed or upset in any way he makes straight for a little oratory of mine, he seizes the crucifix, hurls it to the ground and tramples it under foot." Yet when I further cross questioned this distressed parent, I found that when the boy was in the kitchen in the company of the servants his antipathy to religion disappeared. There he exploited another device in order to provoke a pleasant stir. He had there developed the almost equally distressing habit of pulling his nurse's petticoats high over her knees.

Such stories illustrate the truth that in much infantile wickedness the offence is designed by the child to provoke the maximal emotional response having regard to the personality of the parent or nurse upon whom it is practised. The artistic æsthetic mother, the mother to whom sacred things were very sacred, the nurse with the strict conventional code that rules downstairs, for each a different device. These children were, of course, peculiarly gifted offenders. Most are perhaps less subtle. As a rule a child soon learns that the surest and easiest way to disturb, the most pleasurable for himself and the most exasperating for his parent is to fall to loud crying. It is a direct challenge, a true tyranny of tears. He knows that he can keep his mother on tenterhooks by the strength of his lungs.

Now Locke is no friend to corporal punishment. In general his plan is carefully to build up what he calls A State of Reputation for the child to fall from which is itself the greatest punishment.

"First, Children (earlier perhaps than we think) are very sensible of Praise and Commendation. They find a Pleasure in being esteemed and valu'd especially by their Parents, and those whom they depend on. If therefore the Father caress and commend them when they do well, show a cold and neglectful countenance to them upon doing ill, and this accompanied by a like Carriage of the Mother and all others that are about them, it will, in a little Time, make them sensible of the Difference; and this, if constantly observed, I doubt not but will of itself work more than Threats and Blows which lose their Force when once grown common, and are of no Use when Shame does not attend them; and therefore are to be forborn and never to be used, but in the Case hereafter mentioned, when it is brought to Extremity."

It is when the child begins to exploit his power over the parent, when he issues a direct challenge, and shows what Locke calls his Love of Dominion, that the rod must be produced and this Love of Dominion is generally shown by what he calls Stomachful crying.

"The obstinate or stomachful Crying should by no means be permitted, because it is but another way of flattering their Desires, and encouraging those Passions which 'tis our Business to subdue; and if it be, as often it is, upon receiving some Correction, it quite defeats all the good Effects of it; for any Chastisement which leaves them in this declared Opposition, only serves to make them worse. The Restraints and Punishments laid on Children are all misapplied and lost, as far as they do not prevail over their Wills, teach them to subdue their Passions and make their minds supple and pliant to what their Parents Reason advises them now, and so prepare them to obey what their own Reason shall advise hereafter. But if in anything wherein they are crossed, they may be suffered to go away crying, they confirm themselves in their Desires, and cherish the ill Humour, with a Declaration of their Right, and a Resolution to satisfy their Inclination the first Opportunity. This therefore is another Argument against the frequent Use of Blows: For whenever you come to that Extremity, 'tis not enough to whip or beat them, you must do it till you find you have subdued their Minds, till with Submission and Patience they yield to the Correction; which you shall best discover by their Crying, and their ceasing from it upon your Bidding. Without this the Beating of Children is but a passionate Tyranny over them; and it is mere Cruelty and not Correction to put their Bodies in Pain, without doing their minds any Good. As this gives us a reason why Children should seldom be corrected, so it also prevents their being so. For if, whensoever they are chastis'd, it were done thus without Passion, soberly, and yet effectually too, laying on the Blows and Smart not furiously, and all at once, but slowly with Reasoning between, and with Observation how it wrought, stopping when it had made them pliant, penitent and yielding; they would seldom need the like punishment again, being made careful to avoid the Fault that deserved it. Besides, by this means, as the Punishment would not be lost for being too little, so it would be kept from being too much,

if we gave off as soon as we perceived that it reached the Mind and that was bettered. For since the Chiding or Beating of Children should be always the least that possibly may be that which is laid on in the Heat of Anger, seldom observes the Measure, but is commonly more than it should be, though it prove less than enough."

Now let me turn for a few moments to Locke's treatment of the second difficulty, that of the school boy who lacks concentration, who will not attend who could do better. No doubt there are many idle schoolboys, idle for the love of it. The joy to be derived from intellectual exercise develops late, but the majority of conspicuous failures at school are not I think due to sheer idleness. The boys fail for other reasons. It is of them especially that the cry goes up, "could do better if they tried." Their schoolmasters are conscious that their general capacity is not inconsiderable, but the more they are urged, appealed to, expostulated with the more miserable is their performance. They are like a cricketer out of form, kept ineffectual by the keenness of their sense of failure. Such boys are told many times a day that they seem incapable of learning. If one subject alone is exempt from blame it will be found that it is to that subject alone that they address themselves with zest and with success. In the rest of their work they are so occupied with an agitated attempt to attend that their interest is never caught or they sit dully and hopelessly, accepting as truth that their incapacity is as great as their form master, who presumably ought to know, says it is.

A friend of mine, a surgeon, once brought his boy to see me with a story of continued failure at school, and a bunch of school reports couched in terms that would have squeezed the self confidence out of a judge on the bench. I said to him, "Now just suppose it was possible to express the quality of your own work in the same way in the form of a numerical order. Suppose that every week at your hospital a list of the work of the surgeons was published and that every week your name occupied the bottom position with the highest percentage of sepsis and of death. And suppose that in order to stimulate you to do better work the Governors of the hospital sent for you and rebuked you soundly and even arranged, in order to mark their displeasure, that you should return to the hospital on Saturday afternoon and perform twenty operations for hernia. With what zest or with what success would your work be done?"

The state of these unhappy boys is bad enough at school. If their parents take the same line at home they are indeed in sad case. I like to think of another friend of mine, a physician this time, who when his boy was reported to have been idle, opined that some mistake or misunderstanding must have occurred, took train to the school and returned with something in the nature of a retraction on the part of the form-master in his pocket.

Let us see what Locke has to say of this difficulty.

"'Tis, I know, the usual Method of Tutors, to endeavour to procure Attention in their Scholars, and to fix their Minds to the Business in Hand, by Rebukes and Corrections, if they find them ever so little wandering. But such Treatment is sure to produce the quite contrary Effect. Passionate Words or Blows from the Tutor fill the Childs Mind with Terror and Affrightment, which immediately takes it wholly up, and leaves no Room for other Impressions. I believe there is no body, that reads this, but may recollect what Disorder hasty or imperious Words from his Parents or Teachers have caused in his Thoughts; how for the Time it has turned his Brains, so that he scarce knew what was said by or to him. He presently lost Sight of what he was upon, his Mind was filled with Disorder and Confusion and in that State was no longer capable of Attention to anything else.

"'Tis true Parents and Guardians ought to settle and establish their Authority, by an Awe over the Minds of those under their Tuition; and to rule them by that; But when they have got an Ascendant over them, they should use it with great Moderation and not make themselves such Scare-crows that their Scholars should always tremble at their Sight. Such an Austerity may make their Government easy for themselves, but of very little use to their Pupils. 'Tis impossible Children should learn anything while their Thoughts are possessed and disturbed with any Passion, especially Fear, which makes the strongest Impression upon their yet tender and weak Spirits. Keep the Mind in an easy calm Temper, when you would have it receive your Instruction or any Increase of Knowledge. 'Tis as impossible to

draw fair and regular Characters on a trembling Mind as on a shaking Paper.

"The great Skill of a Teacher is to get and keep the Attention of his Scholar. Whilst he has that, he is sure to advance as fast as the Learners Abilities will carry him; and, without that, all his Bustle and Pudder will be to little or no purpose."

And now lastly, let me read to you one of the concluding paragraphs of the book, if only to show you how gracefully Locke can bring a dull subject to a close. He is talking of the part travel plays in education.

"This will not I fear alter the Custom, which has cast the Time of Travel upon the worst part of a Man's Life; but for Reasons not taken from their Improvement. The young Lad must not be ventured abroad at eight or ten, for fear what may happen to the tender Child, tho' he then runs ten times less Risque than at sixteen or eighteen. Nor must he stay at home till that dangerous, heady Age be over, because he must be back again by one and twenty to marry and propagate. The Father cannot stay any longer for the Portion nor the Mother for a new Set of Babies to play with. . . But the young Gentleman being got within View of Matrimony, 'tis Time to leave him to his Mistress."

Medical Practice in America.

By J. J. CONYBEARE, M.D.

A STRANGER walking through the streets of any American city is at once struck by the large number of brass plates indicating the consulting rooms, or as they are termed in America the offices, of medical men, osteopaths, and chiropractors. Although in England medical practitioners have always to some extent had to face the rivalry of unqualified bone-setters, and though the exploits of the latter may at times be read of in the daily press, yet as regards the vast bulk of the population of the British Isles the doctor has succeeded in maintaining a commanding position compared with that of the quack, whether he be osteopath, chiropractor, or Christian Science practitioner. At first sight it is difficult to imagine how so many doctors, let alone the osteopath and chiropractor class, can succeed in making a living. The explanation lies in the fact that, especially of late years, medical practitioners in the United States and Canada have tended to collect in the cities. The surrounding country districts and villages, though often fairly thickly populated, have relatively few medical men. This result has been partly brought about by the great expansion of the automobile movement. In the States alone there are at the present time over seventeen million cars, which are owned not only by the rich or even the moderately well-to-do, but by very large numbers of small farmers, skilled artisans of all types, and many who in England would no more dream of owning a car than an aeroplane. All these car owners and their families, who live in the suburbs and villages adjoining the larger towns, use their cars to transport them to the city practitioner, whether he be a recognised medical man, osteopath, or chiropractor. At the present moment the American Medical Association is considerably worried by the increasing shortage of medical men in country districts, which, if it continues to progress, will soon leave large areas completely without local medical practitioners.

But this tendency for the doctors to aggregate in the towns has had one important result as regards the type of American medical practice. As the medical man frequently lives far from many of his patients there has ceased to be that personal touch, which is so characteristic of the relations between the English family practitioner and his patients. In England, particularly in the country districts and smaller towns, most families employ but one practitioner, in whose care they may have been all their lives. Often, too, he is not only their medical man, but his advice is sought in many of their difficulties, domestic and otherwise.

Although in America the family practitioner still exists, his position from year to year is becoming less secure. This is reflected in the small extent to which practices are bought and sold in America. In England it is excep-

tional for a young medical man to embark on general practice without either buying a practice or starting as a partner or assistant in some old-established practice. In America it is quite the reverse. The majority of men simply "put up their plate" and hope that they will be able to attract a practice, and apparently in the majority of cases they are successful within a reasonable length of time.

The decay of the general family practitioner is also being accelerated by two other factors; first, the great interest in medicine and science generally on the part of the American public, and secondly, by the methods of education in vogue at many of the American Medical Schools. Anyone who has worked in a hospital in the United States cannot fail to be struck by the amount of interest that the patients take in their diseases. This is to some extent fostered by articles on medical subjects which appear in every daily newspaper. Child's Restaurants, which correspond to Lyons' Tea Shops in London, print on their menus the calory value of each article listed, and their slogan is "count the calories."

The average patient is not content with a bottle of medicine, but wants to know the why and the wherefore of his troubles. Not only this, but he is always anxious to be investigated by laboratory methods, and displays a surprising knowledge of such things as X-ray examinations, basal metabolism, test meals and chemical investigations. This applies not only to the more highly educated classes, but also to what in England would be termed the hospital type of patient. The natural result is that the American patient tends to go to city practitioners, who have greater scope for performing special tests, rather than to local general practitioners. Nor does the average American confine his visits to doctors to times when he is definitely ill. There is an increasing tendency to go to a specialist or a clinic when he is in health, or at any rate in comparative health, for what he terms a "check up." This is especially true of the better educated classes, who have at any time had a serious illness. To their minds prevention is better than cure. It is only natural that for such a "check-up" they prefer to go to the city specialist of established reputation, rather than to the country general practitioner.

To turn now to the second factor, which helps to account for the unfavourable position of the general practitioner in America, the education of the medical student. In many of the medical schools, particularly those which have the highest reputation, there is an increasing tendency to encourage the student to concentrate on one particular line of work. As soon as he begins to come into contact with patients, and even earlier, there are a definite number of hours every week set aside for the study of what is termed an "elective" subject. Such an elective may be gastro-intestinal work, cardio-vascular disease with electro-cardiography, extra work in pediatrics, or in practically any department of the hospital, medical of surgical. Moreover, in many schools the qualified student passes directly into one of the special departments, such as pediatrics for his internship or house appointment, without doing any further general work in other departments. The result of such a system of medical education is naturally to drive the newly-qualified man into becoming a specialist, for his training has in many cases been quite inefficient in rendering him a capable general practitioner.

The result of all these factors has been a great multiplication of specialists in the larger American cities. As an illustration of this tendency I may quote the case of the City of Baltimore. With a population of, roughly, 700,000 persons there are over twenty medical men who practice in pediatrics and pediatrics alone. When one considers that in London, with roughly ten times the population of Baltimore, the pure pediatricians can almost be counted on one's fingers, the contrast between conditions in England and in America can be appreciated. A similar state of affairs exists in obstetrics. Practically the whole of the obstetric work, at any rate as far as private patients are concerned, is in the hands of specialists. Their work is greatly facilitated by the fact that most confinements take place in the lying-in wards of hospitals, where many beds are reserved for private patients. The average American woman, who can afford the fees, would no more think of staying at home for her confinement than for a serious abdominal operation. To a rather less extent what we may term general medicine has tended to be divided into subdivisions, such as gastro-enterology, diabetes and diseases of metabolism, tuberculosis, and asthma, besides the more generally recognised specialities, such as neurology and dermatology. All these subdivisions of general medicine are the subjects

of special Out-Patient Clinics at most of the bigger hospitals and to a large extent private practice in each of their branches has tended to fall into the hands of specialist practitioners.

In England the term hospital implies what is primarily a charitable institution for the care of the sick poor. Although a few of the larger English hospitals provide a limited number of beds for private cases, in most of them these form a very insignificant proportion of the whole and are, as a rule, designed to meet the needs of the relatively poor. In America this is far from being the case. Even the larger teaching hospitals in both Canada and the United States have anything up to one-third of their beds devoted to private patients; nor are the patients who make use of these facilities of the small professional classes who for the most part fill the private wards of English hospitals. In America even the wealthiest of the population go into the private wards of a hospital when they are ill. The American public feels that it is in the hospital, particularly in the large teaching hospital, that they will get the best attention and treatment and in consequence they prefer to become hospital patients rather than go into private nursing homes. In fact, in comparison with England, the latter are practically non-existent. Nor do the rich, as a rule, remain in their own houses in cases of serious illness. They realise that a hospital provides greater facilities for both diagnosis and treatment. The private patient in a hospital need in no way regard himself as a recipient of charity. In fact the reverse is true: the fees are, as a rule, very high, up to as much as three pounds a day apart from medical fees, and the hospital usually reckons on covering a large proportion of its general expenditure from the fees of private patients.

From the point of view both of doctor and patient the hospitalisation of private patients is most satisfactory. The patient is assured of good nursing and the services of a resident physician, together with facilities for any and every investigation, such as X-ray, which his doctor may deem necessary. The doctor, on the other hand, finds his work more centralised than in England. Instead of having to visit individual patients in scattered nursing homes, he can do a round of his patients in the private wards on the days on which he attends the hospital for his teaching rounds or for his out-patient work. He can also feel more certain that his orders will be carried out, than if the patient were at home. Incidentally the arrangement is a satisfactory one from the point of view of the hospital itself, as it not only receives good fees, which more than cover board and lodging, but the fees received from private patients for X-ray work, chemical investigations and the like go a considerable way towards paying the costs of these departments. In fact at one large hospital private fees in the X-ray department not only pay for the upkeep of the whole department, but enable the hospital to pay handsome salaries to the radiographer and his assistants.

Another characteristic of American medical practice is the formation of clinics for private patients. The best known of these is naturally the Mayo Clinic at Rochester, Minnesota, but throughout the States there are a number of similar institutions on a smaller scale, and the number of these is steadily on the increase. The patients at these clinics are essentially out-patients who come up for diagnosis in the first instance, but the clinic always has facilities for in-patient treatment in private hospitals, more or less under its own control. A considerable proportion of the patients who attend such clinics as that of the Mayos at Rochester, or that organised by Dr. Crile at Cleveland are referred there by their medical attendants, but in a large number of cases the clinics have become sufficiently well-known to attract patients directly, and in such cases they act both as general practitioners and consultants. From the point of view of the patient the clinic system is satisfactory, at any rate in the case of the better known clinics, for he is assured of a careful and systematic examination by specialists of high professional standing and knows that he will have the advantage of the latest scientific advances in diagnosis and treatment. Nor is the cost by any means prohibitive. The bulk of the patients who attend the Mayo Clinic are drawn from the small farmer and professional classes of the Middle West.

We may now turn to a consideration of the extent to which these tendencies of American medicine are desirable and may attempt to form a judgment as to whether medicine in England is likely to develope along similar lines. In the first place it may be confidently asserted that there are few who would be ready to see the position of the family practitioner sacrificed in favour of a larger number of special-

ists and consultants. In England the great majority who graduate from the medical schools go into general practice, and, taken as a whole they form the bedrock on which the foundations of the medical profession are laid. Any movement which tends to diminish the esteem and affection which the average patient feels towards his family practitioner is bound to play into the hands of unqualified men. One of the most potent reasons for the little progress made by osteopathy and chiropraxy in England is the firm bond between the doctor and his patient. If this be weakened there will assuredly be a great increase of unqualified practitioners, as there has been in America. Moreover, the general practitioner is a great protection to his patient. If the latter wishes to consult a specialist, his family doctor can at any rate direct him to the right quarter. In America where patients frequently go direct to a specialist of their own choice, they not infrequently find they have failed to interpret their symptoms correctly, and that they are consulting a gastro-enterologist for digestive symptoms due to heart failure; similar instances might be multiplied. A consultation with their general practitioner would at any rate help them to avoid such mistakes and the trouble and expense associated with them. Further, the vast majority of troubles for which a patient consults his doctor are trivial in quality and can be dealt with just as well, in fact better, by a family practitioner than by any specialist. So long as our medical schools continue to turn out men with a good all-round experience there need be little fear that the general practitioner will lose his prestige.

In some respects, however, I think English medicine may usefully follow the lines of American practice. One of the most obvious advantages of the American system is the provision of hospital accommodation for private patients. Nor need this provision be restricted to the larger hospitals; there are many small provincial towns with excellent hospitals and thoroughly able practitioners where the private ward system might be introduced or extended. A further step would be the provision of consulting rooms in the hospital for private patients, which would tend to concentrate the work of the doctor and to place his private patients in a better position for laboratory investigation. Although this plan has not been generally adopted in America it is having its beginnings in the case of some hospitals.

As regards the clinic system, it will probably be many years before anything on the scale of the Mayo Clinic is attempted. However, with the great increase that is taking place in the number of investigations, which are becoming necessary for diagnosis, it is obvious that the general diagnostic clinic providing facilities for all investigations under one roof would be of great benefit to the patient as well as to the doctor. In England we already have some examples of the clinic system on a small scale, and it is difficult to imagine that the system will not eventually extend considerably.

Keats at Guy's.

THAT astonishing creature, John Keats, who walked the Colonnade from 1814 to 1817 and died in Rome at the age of twenty-five, leaving behind him a poetical reputation which is steadily rising to a place second only to Shakespeare's, has found a new biographer. Whereupon the race of reviewers have proceeded to treat the biographer with the same scant courtesy they meted out a century ago to the subject, "Johnny Keats, the Surgeon's Apprentice." Mr. J. C. Squire, for example, makes merry over Miss Amy Lowell's twelve hundred pages, vast index and appendices, as "a very museum for persons who are curious about this fact or that in Keats' life, this image or that in his poems." And Mr. W. L. Courtney observes that if there is any fact about Keats, however minute, which is unknown to the future student of literature, it will not be the fault of Miss Amy Lowell. But the *Times* "Literary Supplement" in a leading article of great insight and penetration, has done her justice in saying that she has made Keats the man, at least in his earlier years, real to the reader as no biographer has done before. And it is precisely "Keats the man in his earlier years" who concerns us at Guy's. Without, therefore, trespassing on the province of the literary critic we may eagerly welcome the work by which

Miss Lowell has supplemented her predecessors and filled in some of their gaps.

Lord Houghton does not actually mention Guy's, merely remarking that Keats "walked the hospitals," though he knew of the existence of the anatomy notes now to be seen in the Hampstead Public Library. Sir Sidney Colvin is a little fuller in his information about the Guy's period of Keats' life, mentioning his lodgings, first in Dean Street, then in St. Thomas's Street, his appointment as a dresser under Mr. Lucas, and his successful examination for the L.S.A. at Apothecaries' Hall. It is interesting to find the following reference in Marie Gothein, "John Keats: Leben und Werke" (i. 19):—

"In den ersten monaten seines Londoner Aufenthaltes hatte Keats für sich allein in Deanstreet, in einem Stadtteil, den er selbst schenfflich nentet, gewohert. In Sommer, 1815, teilte er eine grössere Wohnung in St. Thomasstreet über dem Laden eines Seifensieders mit zwei Studiengenossent."

To these notices neither Speed nor Buxton Forman have anything to add. The "John Keats Memorial Volume," issued by the Keats House Committee, Hampstead, for the Centenary Celebration in 1921, is disappointing in not containing among an immense number of contributions an article on, shall we say, "Guy's and Gallipots." But the fact remains that for an account of Keats as a medical student the delightful article entitled "Junkets" (his Guy's nickname), printed in the GAZETTE in 1905, and reprinted in 1921, remains easily the best source of information.

But to return to Miss Amy Lowell (whose book, by the way, is published by Jonathan Cape, 11, Gower Street, 2 vols., 42s.). She discusses at some length whether he walked from Edmonton to Guy's, or came by coach, or how? Here indeed we may smile with the reviewers at her enthusiasm, and, sad to say, the world will never know. But she continues in a more pertinent strain, "Keats' attitude towards poetry was a good deal like this: He fed on it in his heart, he intended to devote all his leisure time to it, but his job was to become an apothecary and surgeon, and so ingrained was the idea that he does not, at this period, seem to have questioned it."

She faithfully transcribes the entries in the Hospital Registers. The first entry records that Keats, educated under Mr. T. Hammond, Edmonton, was received at Guy's on October 1st, 1815, and paid the office fee of £1 2s. Next day he is assigned to Mr. Lucas and pays a fee of £25 4s., but at the end of the month, "Mr. Jno. Keats had returned to him £6 6s., he becoming a dresser."

Miss Lowell considers Keats' appointment to the Lucas firm the death-blow to his surgical career, "for Mr. Lucas was clearly not the man to inspire a rather half-hearted assistant with enthusiasm." This she has deduced from the account of Lucas given in the "Memorials of John Flint South," collected by the Rev. C. L. Feltoe and published in 1884. This little book is full of fascinating pictures of Guy's and St. Thomas's and the surgeons of the early nineteenth century, but is distressingly meagre for our present subject, its only reference in fact being the following :—

"George Cooper told me that whilst at Guy's Hospital, where he was a dresser to Astley Cooper for 18 months, he lived in St. Thomas's Street, at a tallow chandler's named Markham, where John Keats, the poet, lived with him, having been placed under his charge by Astley Cooper." And Miss Lowell comments:—"Had Keats the good fortune to have been appointed dresser to the very magnetic, lightning-minded and enthusiastic Astley Cooper, not yet a baronet, his interest in his work would have been augmented tenfold." Perhaps, but the possible gain of another competent surgeon would hardly have compensated the world for the loss to literature if Astley Cooper had driven all poetry out of Keats' head! Miss Lowell has an interesting summary of life at Guy's a century ago. "The life of a medical student, particularly when he is also something very nearly corresponding to an 'intern' in our modern hospitals, is an arduous and fatiguing one. Keats . . . had not realised how much harder he would have to work, attending lectures, dissecting specimens, and assisting at operations than he had ever been obliged to do at Mr. Hammond's. His courses consisted of two on anatomy and physiology, two on the theory and practice of medicine, two on chemistry and one on *materia medica*." Finally comes the account of the examination and consequent qualification—a fact not universally recognised—of Keats in these words, "In 1816 clearly Keats was obliged to buckle down to his medical studies. On July 25th came the fateful examination, and Keats went up and—passed. No wonder his fellow-stu-

dents were dumbfounded, but so it was." Here we may refer the curious to Mr. H. C. Shelley's "Literary By-Paths in Old England," which contains a photograph of the original page in the Register of Apothecaries' Hall on which Keats' medical career culminating in his examination and approval by Mr. Brande is fully set out. But Guy's having shepherded him through this test is to know him no more. He deserts Æsculapius for Apollo. "His immediate concern was to put his diploma in his trunk, and promptly forget all about hospitals and hospital studies. . . So Keats bade goodbye to his fellow-students at Guy's and St. Thomas's and went off to Margate." And when he reappears it is not in the company of Mr. Lucas and George Cooper in the Boro., but with Leigh Hunt, Cowden Clarke, Haydon and Shelley at Hampstead.

"The Letters of Keats," edited by Sir Sidney Colvin add little to our knowledge of his hospital days, and it will, perhaps, be convenient to summarise the reflections to which the thought of Keats at Guy's gives rise in the words of Dr. B. W. Richardson in the "Asclepiad" (vol. i., p. 138), where the potentialities are fully discussed, if perhaps exaggerated. Dr. Richardson says :—

"The stature of the man was small, and the body, although well-shaped, delicate. Mr. Stephens remembered him as being called by his fellow-students Little Keats, no more than 5 ft. high. In the lecture room he seemed to sit apart, and to be absorbed in something else. . . He never attached much importance to his own studies in medicine, and looked upon the medical career as the career by which to live in a workaday world, without being certain that he could keep up the strain of it. . . . Amongst his fellow-students Keats was respected, and by a few loved. Leigh Hunt's after-description of him as 'a mighty soul in a little body' was understood long before by his medical contemporaries. . . In the medical schools the origin of the student-poet was well known, and though doubtless it was as good as that of many others there, and better than some, it seemed as Keats too sensitively thought 'to stick to him.'". . .

It has been said that Keats, although educated for our own profession of medicine, had no talent for it. In that vulgar acceptance of the term, which converts talent into success as tested by the money-getting standard, the height and splendour of the idol of the marketplace, that may be true. It requires an immense amount of inborn stupidity, and withering of heart and lowering of soul, and worship of dumb ugliness, to secure success in the money market of a profession, which in its purity is too exalted for wealth either to nourish or debase. But if Keats had once tasted the true spirit of medicine, he would, I believe, have become one of her greatest sons—an addition, perchance, to the some eight or ten of the men of all time whom medicine claims as her own, her poets of nature, like Keats himself, and in their way poetising in undying thoughts if not in measured lines.

Here and there in Keats' letters, and more than once in his poems, the physician, touched no doubt by some metaphysical mysteries, stands forth in strong outline. His aspirations were the truest the truest physician could have. To his friend Taylor he writes, "I find that I can have no enjoyment in this world but the continual drinking of knowledge. I find there is no worthy pursuit but the idea of doing some good to the world." To John Hamilton Reynolds he confides, "Were I to study medicine again, I feel it would not make the least difference in my poetry; when the mind is in its infancy, a bias is in reality a bias; but when we have acquired more strength, a bias becomes no bias. Every department of knowledge we see excellent and calculated towards a great whole. I am so convinced of this that I am glad at not having given away my medical books, which I shall again look over, to keep alive the little I know thitherwards." . .

Glorious Keats! What a real physician thou mightest have been had the fates willed it.

There is another letter addressed to John Taylor, in which a facility for subtle interpretation of mental origins of physical diseases is shadowed forth with singular keenness by our poet. "Our health, temperament and disposition are taken," he observes, "more from the air we breathe than is generally imagined. See the difference between a peasant and a butcher. Agriculture is the tamer of men; the steam from the earth is like drinking their mother's milk—it enervates their nature. This appears a great cause of the imbecility of the Chinese. What is the cause of so many men maintaining a good state (of health) in cities, but occupation? An idle man, a man who is not sensitively alive to self-interest in a city, cannot continue long in good health. This

is easily explained. If you were to walk leisurely through an unwholesome path in the fens with a little horror of them, you would be sure to have your ague. But let Macbeth cross the same path, with the dagger in the air leading him on, and he would never have an ague nor anything like it."

Keats not a physician! Why, the father of physic himself might have written what the poet has here indited.

If this be fact, not fancy, then perhaps Guy's gave in John Keats more to England than England knows. At least he is ours, and he is immortal, for—

"'Tis death is dead, not he;

. . . . . .

The soul of Adonais, like a star
Beacons from the abode where the eternal are!"

ALFRED G. HARRIS.

Medical Men in Literature.

By R. C. BROCK.

HAVING noticed what a large number of literary men had received training as barristers, it occurred to me that it would be interesting to investigate the contributions of medical men to literature. It was, however, only after much searching that I was able to make up a list of any size or importance, and I venture to set this out below in the hope that the association of some of the names with medicine will be a surprise and that anyhow the survey will be interesting.

One thing is apparent in studying these men; namely, that to describe them as doctors who have contributed to literature is by no means correct. With very few exceptions they have been men of letters primarily and have only spent a portion of their lives at medicine. Time after time the same story occurs, failure at medicine and a constant urging to a life of writing.

It is also only fair to say that some of them obviously took up medicine in the same way that they might have taken up any other living; there was no special call at all. But even in such notorious cases as Oliver Goldsmith, who included medicine in some half-a-dozen other jobs, it is noticeable that medicine had the greatest hold on them before they finally threw up everything for literature.

First must come "the Belovèd Physician" Luke. I make no apology for including him as he was certainly a well-trained doctor of his times and his literary qualifications are proven in the masterpiece of biography known as "The Acts." As a piece of literature, apart from its religious value, it ranks as high as Boswell's "Life of Johnson."

That he was a physician is stated definitely in St. Paul's Epistles, and it is believed that he was a Greek and came of a medical family, receiving, in fact, his training from his father. He practised in Antioch where he probably met Paul and accompanied him on his journeys as his medical attendant; it will be recollected that St. Paul constantly refers to an infirmity to which he was subject and which was a great ordeal to him.

One more early writer of this time who is worthy of mention is Galen; he may not have left a big mark on literature as we know it, but he was the most celebrated of ancient, medical writers, being very versatile and accomplished. He made some valuable notes on the writings of Hippocrates and, I believe, was also a great exponent of Stoic philosophy.

Nearly fifteen hundred years later is Rabelais, a very great and important figure of his day. The first thirty years of his life were spent in a monastery life acquiring a wealth of knowledge, and it was not until he was over forty and had already a great reputation that he suddenly embraced medicine. After taking a course of about two years he settled down to a very busy life of writing and professional duties. He was evidently fairly successful apart from the literary efforts which survive him, as he was a lecturer in Anatomy.

Another man who similarly qualified late in life was Thomas Lodge, a dramatist of Shakespeare's time. He took his M.D. in his forty-third year; it is said that his works after this had a more sober cast than their former freedom!

Sir Thomas Browne is too well known from his two most famous works, "Urn Burial," and "Religio Medici," to need little more than mention, but he was, it should be remembered, one of those who were pre-eminently doctors, and was a very successful one too.

A few years younger than Sir Thomas Browne was John Locke, the Philosopher; it was a surprise to find he had anything to do with medicine. While at Oxford he had a leaning towards theology, but the dogmatism and impediment to free inquiry imposed by such a life led him to satisfy his desire for scientific investigation by choosing medicine as his profession. He actually practised in Oxford for some time although he never qualified, a friendship he made leading him to give up his practice and spend his time on the religious and political philosophy by which he is known to-day. It is a great pity that such a mind did not devote its depth and power of thought to the advancement of medicine.

Sir Samuel Garth was a very popular poet in his day, but not nearly such a well known figure in the medical and literary world as John Arbuthnot. A great physician and wit, he was a close friend of Swift and Pope, of Gray, Congreve and Addison. Pope's prologue to his satires, "A Letter to Dr. Arbuthnot" is well known. Dr. Arbuthnot was an active Fellow of the Royal Society, was physician to Queen Anne and, in fact, attended her at her death. His own most famous work is "The History of John Bull." It is not certain that he originated the character of John Bull.

Tobias Smollett and Mark Akenside came together. Akenside was a minor poet, he intended to enter the Church, but gave it up for medicine to which he devoted himself fairly thoroughly. A judicious change of politics at the right moment led him to become physician to the Queen of George III. Smollett caricatured him in his "Peregrine Pickle."

Smollett is really an interesting character. Indignant at being apprenticed to a surgeon he ran away when he had completed his bond and took to play writing. This failing, he joined the Navy as a surgeon. After some years he settled in Downing Street, but could make no success in practice. As a wit, however, he flourished, and his years spent at sea found expression in his novels. Richardson had already published "Pamela," but Smollett was one of the real pioneers of the novel, and certainly of the sea story. He was the first man to reveal the life of the sailor to the public; all its colour and possibilities and characters were portrayed in "Roderick Random" and his later works. Even in the midst of his fame as a novelist he must have still had a great desire for medicine for he worked and took his M.D. after many years of public life.

Oliver Goldsmith tried medicine as a last resort after odd attempts at the Bar, the Church and emigration. He went to Edinburgh and then to Leyden, but left there at twenty-seven with no degree and the merest smattering of medical knowledge. He had only his clothes and flute, and from Leyden wandered all over the Continent playing for a living. This, of course, later found song in "The Traveller."

Arriving in England he found playing the flute was not very lucrative, and after poverty in several mean positions he secured an appointment in the Indian Medical Service. This, however, was speedily revoked; nobody knows quite why as it was a very sore point with Goldsmith! He made one last attempt at medicine by entering for an examination at the Royal College of Surgeons but they were evidently as particular as the I.M.S. and so he gave it up and devoted himself to literature. In everything he touched, poetry, plays, the novel, history, he was a success. His friends were the distinguished members of the Johnson circle.

After Goldsmith, Crabbe is a small figure, but the critics during his life raved about his poetry. Thomas Hardy says it influenced him greatly in writing his novels, but he has never found favour with the public. As a boy he was so clever that his father, quite rightly, decided medicine was what he was made for! This very sound observation was unfortunately incorrect, as once again the same story of the poet failing in medical practice followed.

Thomas Lovell Beddoes, the poet, began by studying anatomy and physiology, thinking that a knowledge of them would make his dramatic work more successful. He was evidently so enthralled that he stopped and practised medicine in Zurich and was even elected to a Chair of Anatomy.

John Keats is of particular importance for he was, as we all know, a Guy's man. It is scarcely necessary to say anything about his poetry, save perhaps that he has been ranked next to Shakespeare. A few things about his medical life are more in place. When he was fifteen he was apprenticed to an Edinburgh

surgeon for five years. A fellow-student describes him then as "an idle, loafing fellow, always writing poetry"; this was not quite true as he was not idle, but for some reason his temperament did not fit in with his master's for the bond was dissolved by mutual consent and Keats came to London. His first address was 8, Dean Street, but he soon moved to St. Thomas's Street, where he lived with two other students over a tallow-chandler's shop. Guy's and St. Thomas's were then combined for lectures, but his clinical work was all done at Guy's. He was "a capable but fitful student," and while not neglecting medicine, his chief interest was poetry.

When he was twenty he became dresser to Mr. Lucas, but being introduced to Leigh Hunt about this time his passion for poetry began to take bigger hold on him. A few months after beginning this dressership, Keats, as does not appear to be generally known, passed L.S.A. and, moreover, received honours. Many people think Keats did not qualify, but this is not so.

He met Shelley soon after Leigh Hunt and, if I remember rightly, actually brought Shelley to some lectures in physiology at Guy's. At any rate poetry was fast gaining hold on him and we hear that six months after qualifying "in spite of successfully performing several operations he said he would abandon surgery as he felt he was unfitted for it, and endeavour to publish a volume of poems." This was his severance from medicine.

He certainly wrote "La Belle Dame Sans Merci" and his famous Sonnet "On First Looking into Chapman's Homer" while in St. Thomas's Street, and for all we know some of his other famous works. "I stood tiptoe upon a hill" was written while he was still at Guy's, but after he had moved from St. Thomas's Street across the river to Poultry and was paying his visits to Hampstead.

Such was Keats' connection with medicine. He made it fill a part of his life pretty thoroughly, but the two things were to him apparently so incompatible that he made no attempt to carry them out together. After all, the cases one met in those days could not have been pleasant to such a mind as Keats'. In his poems there are extraordinarily few references to the side of life he must have seen and learnt while at hospital; the "Ode to a Nightingale" has a passing reference.

It is interesting to speculate whether the psychology of the phthisical patient had any part in causing him to cast aside medicine with such assurance.

Charles Lever, chiefly famous as the author of "Charles O'Malley," was a wild medico in his early days. He started a hectic life of studying medicine, but before qualifying went to Canada as surgeon on an emigrant ship. After a perilous escapade in the backwoods he sailed for Germany where he was attracted by the uncouth and bloodthirsty type of life led by the students there. Ultimately he settled down to a more sane life of writing.

Goethe and Sainte-Beuve are two foreign additions to the list. Goethe, as a fact, only studied medicine as a part of his general scheme to obtain knowledge in all its branches; he studied it very thoroughly, though.

Sante-Beuve, the critic, abandoned medicine early, on forming a friendship with Victor Hugo. Men of his sort, who subsequently found fame in the more constructive forms of writing as opposed to pure poetry or literature for its own sake, must have found the time they spent in observation and scientific methods of thinking of great value to them.

R. D. Blackmore, of "Lorna Doone" fame, was connected with medicine. He finally became a barrister, but only after he had spent some time at medicine. Several of his novels contain very accurate and clear descriptions of illnesses which would lead one to suspect he was not writing as a pure layman.

Samuel Smiles was a surprise find. He had a very long and distinguished life, a part of which was spent as a doctor. He was the eldest of eleven children, and, his father dying early, it was left to his mother to bring them up; it is suggested that her fine spirit first led him to the ecstasies of Self-Help and Self-Education that he extolled later in life. He had a great deal to do with obtaining his own medical education, but afterwards attempted to get a living out of three thousand healthy Scotsmen with *seven other doctors* trying the same!

Medicine could not have had a great hold on him for he seems to have straightway thrown it up for his very successful life in other spheres.

In Francis Thomson we again meet the clash between poetry and medicine. He was the son of a doctor, and although he decided on the same profession he had no real interest in it, being bent on literature, which he finally took

up. How many men do we find in a day's march now who spend years in qualifying and then do something else?

O. W. Holmes, in contrast, was most anxious to succeed in his profession. Unfortunately he could make no success of his practice; his fellow-citizens did not seem to think that a man so brilliant in conversation and who could write such dainty, little poems was sufficiently serious to be a doctor. He won many prizes for professional papers, though, and one on "The Contagiousness of Puerperal Fever" aroused great contention and bitter personal abuse before it was admitted to be right. His medical essays are said to hold some of his most sparkling wit and shrewdest observations. He is chiefly known, of course, for his "Breakfast Table" writings. His professional attainments can be realised when one hears he was Professor of Anatomy and Physiology at Harvard University. This position evidently included so many odd duties that he remarked it might with advantage be called "a settee" and not "a chair" that he held. He is said to have been so fresh, witty, and lively that students were sent to his lectures at the end of the day when they were so fagged that he alone could keep them awake. Hard working lot!

It was unfortunate that his nature was so eager and impetuous that he had not the patience to follow up his own scientific suggestions, but left it to others to do so and gain the credit. It is curious that here was a man whose works are read with pleasure by many people, and yet how few of them can know his career apart from his writings? It certainly increases the interest tenfold when one knows one's author has another such talented side to his life.

Dr. John Brown, not the gentleman with the body! but the author of "Horæ Subsecivæ" and "Rab and his Friends," was another engaged in active medicine all his life. He was a doctor first and last, and "Horæ Subsecivæ" is a series of essays bearing on the conduct of medical practice. "Rab and his Friends" tries to emphasise the part humanity should play in medicine apart from science.

Opinions may differ as regards including Huxley, but I think, apart from his biological observations, his essays give him a definite place in English Literature.

Henry Morley, who did so much for the London University, is the last before we come to "the moderns." Once again we meet the man who at one go casts all his medical ties overboard. He started in practice but a dishonest partner plunged him into debt, and he set up a small school for children. Thereafter he was associated with education. Coming to London he held a Chair in Literature and was a most ardent worker in the cause of the University. His distinguished works on English Literature are known only too well under his name.

Of present day authors, everyone knows Conan Doyle was a doctor to begin with; his first book "A Study in Scarlet" was published while he was in practice in Southsea. Few seem to know that H. de Vere Stacpoole was, though. He was at St. George's and St. Mary's Hospitals, but I can find no record of his medical activities after qualifying. Again, extraordinarily few people know that the Poet Laureate, Robert Bridges, is a doctor. He is, in fact, a St. Bart.'s man and was Casualty Physician there. He was also Physician to the Great Northern Central Hospital and Assistant Physician to the Great Ormond Street Hospital for Children; he retired from active practice in 1882. He is an F.R.C.P.

Sir Frederick Treves deserves mention for he published several books which attract attention for their literary worth, apart from their interest in coming from his pen. Those who read his last book "The Elephant Man," can testify to this. There are also "Highways and Byways in Dorset," and "The Country of the Ring and the Book," which are well known.

A recent find was Somerset Maugham, the author of the play "Our Betters," which has just had such a long run; he has written many plays and novels. He qualified from St. Thomas's.

A. S. M. Hutchinson did not qualify but started as a medical student, I believe at the Middlesex Hospital. He seems to have been so keen on literature that he persuaded his parents to let him give up medicine after less than two years.

It has been tried to make this list include everyone of note, but as some new name was always turning up it is almost certain several have been missed. Be that as it may, the survey shows with remarkable consistency that the reason of our interest in them—their attachment to medicine—was only an incident in a life, the chief interest of which was literature.

The Discovery of Shakespeare's London.

Proceedings of the League for the Discovery of London.

AN unhappy incident which happened in the neighbourhood of the Obelisk threatened the very existence of the League, in fact, nothing more was heard of it until Shrove Tuesday. A revival took place in this way. Brook qualified at St. Bartholomew's, and in order to celebrate the unexpected, he sent out cards to his fellow members, which read as follows :—

> *Dr. B. A. B. Bling Brook*
> *requests the pleasure of the company of*
> *Mr.....*
> *at dinner at the Elephant and Castle,*
> *on Shrove Tuesday, 7 p.m.*

Clayson arrived early and made no reference to his unhappy experience. Dinner over, appropriate little speeches were made. I congratulated our comrade, reminding him that, had he chosen Guy's as his hospital, he might have qualified years ago, and in the process learned something about medicine. Clayson said something about our host becoming medical officer of the League, but we pulled his coat tail, and Cheeseman was heard whispering that even bachelors have to take care of their health. When peace was restored we settled down to business and decided that the good work of our society should go forward.

O'Connor thought that in view of the Shakespeare celebrations organised by the Cathedral for April 25, it would be well to pay our attention to "Shakespeare's London," Brook thought Shoreditch an admirable place for a Lenten ramble, but when we reminded him that Shakespeare's associations with that dismal neighbourhood were real yet vague, he gave way. To make a sad story cheerful we agreed to meet in the quiet of the Cathedral Close on the following Saturday, in order to track down Shakespeare's riverside haunts.

We left by the gate opposite the south transept and walked for a hundred yards under the protection of the railway. Crossing Cathedral Street, we found ourselves at the entrance to a maze called the Borough Market. In front of us two paths forked, and we took the one to the right and came to Park Street, which took its name from the Park of the Bishops of Winchester, who lived here all through the Middle Ages. In earlier days Park Street was known as Deadman's Place, probably because there was a burial place for Non-conformists on the left hand side. It was here that the preacher's friend, Alexander Cruden, found his last resting place. Poor fellow, after a sad love affair, he settled down to tabulate all the if's and of's and commas of the Bible and left to us an exhilarating work. Clayson took pride in pointing out the Brewery of Barclay, Perkins and Company, whose buildings cover the old graveyard.

Southwark cannot avoid romance even in its brewery. As early as 1690, a firm of brewers was busy here. In the course of time the property passed to the Thrales, who were close friends of Dr. Johnson. Johnson used to come to the Anchor Brewery, where his favourite chair is still preserved. And, be it whispered, when Henry Thrale asked the citizens of Southwark to return him to Parliament, it was the Doctor, who wrote his election address. Only a cynic would suggest that such things have happened since. Johnson was one of Thrale's executors, and at the sale he is said to have used the phrase now so well known, "We are not here to sell a parcel of boilers and vats, but the potentiality of growing rich beyond the dreams of avarice." The property was bought by David Barclay, and the concern in its present form dates back to 1781. As sons of temperance we marched breast forward, leaving the yawning gates on our left.

We had been told not to lose sight of the brewery. Eyeing the wall thereof in case it should run away, we walked on; suddenly Park Street took a sharp turn to the left as if to get out of our way. In good style we turned the corner into what used to be called Maid Lane. With eyes glued to the wall we went on and on until just before 25, Park Street we came upon a plaque in the wall bearing the inscription, "Here stood the Globe Playhouse of Shakespeare, 1598—1613." Always an apostle of orthodoxy, I accepted the information and addressed the assembly. "This is hallowed ground," I faltered. Brook bared

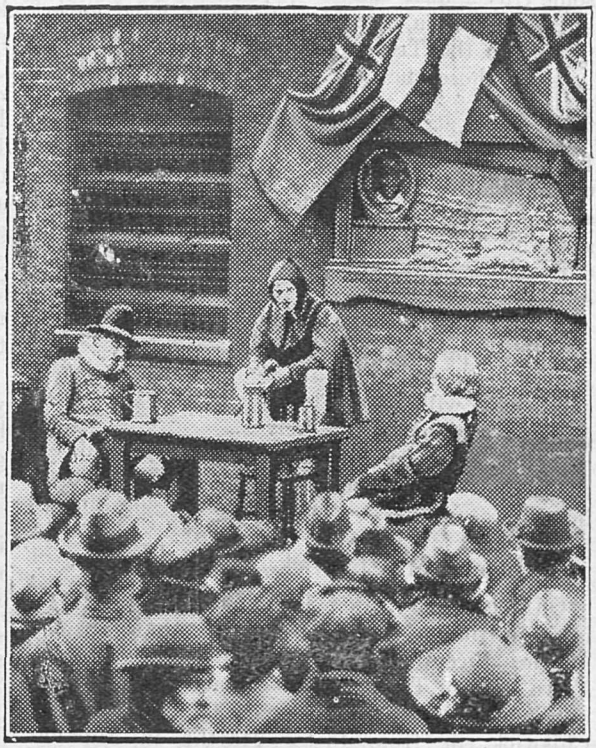
his head, O'Connor removed his coat, Clayson removed his smile, and Cheeseman, who does not understand wholesome sentiment, removed himself. Pleading for a little commonsense, I secured due decorum and began to tell the old, old story of the first English theatre in Shoreditch, built by James Burbage in 1576. When the lease ran out there was trouble with the ground landlord. He, foolish fellow, went away for a holiday at the very moment when he should have been watchful at home. Now the Burbage brothers, Richard and Cuthbert, were not exactly young men of piety. In the absence of the owner they employed a number of labourers to pluck down the timbers of the theatre, and to remove them to the Liberty of the Clink. This was done at Christmas, in 1598, and by the following spring the timbers were forming part of the new theatre—the Globe—which was set up here, on Bankside, in the shade of the Cathedral tower. To the Globe came Shakespeare, Condell, Heminge, Richard Burbage, Ben Johnson and a host of others. Here within a few yards of the wall-memorial, the greatest of all Englishmen must have lived for twelve years. Here he played and here he set down those unequalled thoughts which have charmed the nations since his time. We continued down Park Street until we came to Rose Alley, where we made another halt. My comrades by this time had realised the solemnity of the pilgrimage. Rose Alley reminded them first of the rose garden belonging to a warden of St. Saviour's Church, and then of the Playhouse he built upon it. Henslowe was a competitor of the Burbage's, who were in Shoreditch until 1598. While they held sway across the river he reigned supreme in Southwark. In 1588 he built "The Little Rose," where played Ned Alleyn who, wise fellow, married Henslowe's daughter, and eventually founded Dulwich College, with the proceeds of theatrical and matrimonial enterprise. To the Rose came Shakespeare for a season in

The Globe Playhouse of Shakespeare.

1592, but he was only a visitor then. Rumour says that while at the Rose he lived "by the bear gardens," and so, continuing our walk we visited Bear Gardens, a little thoroughfare leading out of Park Street, on the right hand side. The reader should go up those gardens where in Shakespeare's day bears were tortured for the joy of men. Later on, a theatre—the Hope—found a home there. We noticed how Bear Gardens widen out for no apparent reason. It is said that the open space corresponds with the pit around which galleries were erected

An Elizabethan Playhouse. The Interior.

in the good old days of cruelty. Only a few months ago it is said bears' skulls were dug up by some excavators. We passed through Bear Gardens going towards the river, and in the process no doubt passed the site of the Hope. Reaching Bankside we paused between two ancient guns which Clayton mistook for two Augustinian canons — so meagre is his knowledge of local history. Here Dr. B. A. B. Bling Brook babbled once more. Always the defender of the north bank of the Thames, he pointed to Blackfriars. "There," he announced (he had gained his information from us months ago), "was Shakespeare's winter home within the disused Priory of the Dominicans." We thanked him and turned to the right. Passing under Southwark Bridge, and noting the steps which Mr. Bailey Kempling says should be called Shakespeare's Stairs," we came upon Ceylon Wharf. Here we caught Cheeseman and O'Connor apparently gazing heavenward, but in reality looking towards the inscription, "Nectar," printed boldly on the wharf. They spoke together; they



The Shakespeare Memorial Festival Play, 1924. Park Street, Southwark.

wanted an honest explanation. They were reading the legend: "1599 Here stood the Globe Playhouse of Shakespeare, 1613." Did the Globe stand in two places at the same time? Or did it move from day to day, according to it's whim? Was someone telling a lie? What was the explanation? Not wishing to embark upon the story of an ancient controversy, I promised to tell the story another day. They agreed to the proposal and, passing through Clink Street, we found ourselves at our starting place.

T. P. S.

Guy's Hospital Bicentenary Appeal.

THE Bicentenary Appeal will probably draw to a close at the end of June. This leaves about six weeks to run, and during these next six weeks a special appeal is made to all Past and Present Guy's men and other friends of the Hospital, who have not yet managed to help us, to collect and to contribute all they possibly can. From many letters received it is fully appreciated that owing to local needs some Guy's men cannot help their old Hospital, but there are a great number who have never replied to the Treasurer's request for help, and it is to those that this notice particularly applies.

The money is seriously and earnestly needed. Is it too much to ask for a little from every one? The occasion may never present itself again in such a special and collective form, and the Treasurer so sincerely hoped that all Guy's men would come up to the occasion and do their best.

All those who have so splendidly responded to the Appeal and who have been collecting amongst their friends are reminded that their collections will be gratefully received at any time convenient to themselves.

Amongst the forthcoming events in aid of the Appeal, attention is drawn to the following:—

Dance at Chiswick Town Hall.

On Wednesday, May 13th, Miss I. M. Fowle is organising a Dance and Whist Drive in aid of the Bicentenary Appeal at the Chiswick Town Hall. Tickets are 5s. each and can be obtained from Miss Fowle, at 357, High Road Chiswick, or from Sister Martha in Martha Ward.

Progressive Whist has been arranged for those who do not dance, so that a thoroughly enjoyable evening is guaranteed for everyone.

The Dance starts at 7.30 p.m. and finishes at 11.30 p.m. Evening dress only will be worn and it is hoped all who can go from the Hospital will not hesitate to support Miss Fowle.

An Old English Fête at the Royal Botanic Gardens.

On May 21st, 22nd, and 23rd an Amusement Fair is being organised by the British Charities Association in aid of the Voluntary Hospitals.

The Guy's Hospital Ladies' Association have very kindly undertaken the management of a Stall and Amusements, the entire takings from which go toward their Bicentenary Bed Endowment.

About 40 Hospitals will be participating on this occasion and it is sincerely hoped that Guy's Hospital will lead the way here as it does in other activities, and raise the greatest amount of money. The competition will be keen and the utmost help is wanted. Guy's must win!

The attractions are too numerous to mention. Amongst other things there will be a Dance Floor, Fashion Parades, Treasure Hunt, and Balloon Races, a Cinema which will show films taken at the Fête, so that you can see yourself, a Chamber of Horrors, and many amusing and competitive games.

[We do not think that the Secretary to the Treasurer means anything unkind by his arrangement of this list of undoubted attractions.—ED.]

Foremost amongst Entertainments, however, will be the Disguysed Minstrels. There will be a large Concert Hall, and the famous Disguysed Minstrels have got this for the first night, May 21st.

The performance will start at 7.15 p.m., and it will be over before 9 p.m. All Guy's friends must come and see them and give them the welcome and support they so richly deserve.

Gates open at 2 p.m. The prices of admission are—

Thursday, May 21st, afternoon, 5s.; after 6 p.m., 2s.
Friday, May 22nd, afternoon, 2s.; after 6 p.m., 1s.
Saturday, all day for 1s.

The Opening Ceremony each day will commence at 3 p.m.

Tickets are on sale in the Appeal Office at the Hospital, or from the Hon. Secretary of the Ladies' Association, 73, Wimpole Street, W. 1.

The Hospital retains a percentage of these tickets if bought from the above, but not if they are bought on the day at the Gates.

The Fête will be one of the brightest Social Events in London. Make a note of the dates, *now*, and come and enjoy it.

Dance Matinèe at the Scala Theatre.

Mrs. Ripman and Miss Greenwood are giving a Matinée Dansante at the Scala Theatre on Saturday, May 23rd, at 2.30 p.m., in aid of the Bicentenary Appeal.

The programme includes Classical, Operatic, and Rhythmic Groups and Ballets by the Students and Pupils of the Croydon School of Dancing.

All seats are bookable from 10s. 6d. to 2s. and tickets can be obtained from Mrs. Ripman, at 12, Park Square West, N.W.1.

The production of these dances has always been so excellent that any persuasion or praise would be out of place here. All who love a really pretty performance of graceful dancing should not fail to go.

Guy's Hospital Musical Society.

Particulars of the performance of "Iolanthe" at the Guildhall School of Music by this Society are enclosed with this copy of the GAZETTE.

Ball at Derby.

The Appeal Committee are deeply grateful to the organisers of a most successful Ball held in the Assembly Rooms, Derby. £114 13s. 3d. was raised on this occasion. The Dance Committee responsible for this splendid success comprised Mrs. Coleman, Mrs. King, Mrs. Hughes, Mrs. Parry Jones, Mrs. Kidman, Mrs. Sawday, Mrs. Shearwood, and Mr. W. Allan Reid.

Other organisers of other dances will appreciate how hard this committee must have worked to have obtained such a result. Our sincere gratitude is due to all the Guy's men in and around Derby who helped the committee by their presence and enthusiasm to collect about 260 guests. A splendid example! Will any other Guy's men in other cities or towns follow Derby's lead?

The result of the Dance at Hastings is not yet known.

Reviews.

Anæsthetics.

A Chat on Anæsthetics. By CHARLES HIRSCH, M.R.C.S. Published by Messrs. John Bale, Sons & Daniellson, Ltd., London. *Price 2s. 6d. net.*

THIS pamphlet contains a wealth of detailed information of great service to the student of Dental Anæsthetics. The author is perhaps a little unduly optimistic when he promises "to demonstrate how easily the art is acquired," but he gives very clear directions as to the methods which ensure success. Nitrous oxide and its sequences form the main theme, but other anæsthetics are touched upon.

This paper should prove of practical value to the student commencing his course of Dental Anæsthetics.

Anatomy.

Buchanan's Manual of Anatomy. 5th Edition. Published by Messrs. Baillière, Tindall and Cox, London. *Price 35s. net.*

THIS standard text-book has now reached its fifth edition. It has been revised throughout, rearranged and in large part rewritten. Nearly 200 new figures have been added, and the editors, Messrs. E. Barclay-Smith, J. E. Frazer, F. G. Parsons, and W. Wright may be relied on to have brought the book up-to-date with the most authentic knowledge. The practical guide, which has hitherto been incorporated with the text-book will be published independently. The Manual, in its latest form, will find a larger demand than ever.

A Companion to Manuals of Practical Anatomy. By E. B. JAMIESON, M.D. 2nd Edition. Published by Mr. Humphrey Milford, The Oxford University Press, London. *Price 8s. 6d. net.*

AFTER six impressions of the first edition, published originally in 1913, a new edition has now been produced. The scope of the book remains unchanged, but numerous minor alterations have been made throughout, in order that the statement should be clearer and more easily read. Although of over 500 pages, the "companion" will easily slip into a pocket of any but the most fastidiously immaculate and will be found of the greatest help in revising a "part" in the dissecting-room. For so useful a book the price is extremely moderate.

Bacteriology.

The Bacteriology of Food. By CUTHBERT DUKES. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price 7s. 6d. net.*

THE author has here attempted, with no little success, to fill in the gap between Medical and Industrial Bacteriology.

The first chapter is devoted to methods of food preservation in general; the succeeding chapters are in turn concerned with the bacteriology, analysis and preservation of water, milk, butter, cheese and canned foods. The last chapter deals with food poisoning and its prevention.

An Appendix supplies the particulars of all the media and staining solutions referred to in the text.

In view of the present day controversies concerning food and health this book supplies a much felt need especially to students of bacteriology of all kinds and to students of public health.

Chemistry and Physics.

Elementary Physics. By G. STEAD, M.A. pp. 453. 288 Illustrations. Published by Messrs. J. & A. Churchill, London, 1924. *Price 10s. 6d. net.*

THIS book, covering in its 453 pages, the whole of the physics required for the 1st M.B. Examination, will probably be the book selected by the majority of first year medical students. The author intends it for use in connection with lectures and practical demonstrations.

To those who have conscientiously read through the text, and worked through the numerical examples at the end of each chapter, a thorough grasp of the theoretical side of the subject is assured. As the author points out, the book is not intended to take the place of but to supplement experiments performed by the student himself in the laboratory.

Elementary Qualitative and Volumetric Analysis. By W. CALDWELL, M.A., Sc.D. Published by Messrs. J. & A. Churchill, London, 1924. pp. 418. *Price 10s. 6d. net.*

THIS book is obviously written by a teacher who recognises the difficulties of the student. It should be particularly useful to the first year student in medical and dental schools, who will find it a book containing all he requires for an intelligent understanding of the practical work, both qualitative, and quantitative.

Part III. of the book, which deals with the reactions of common organic substances, forms a valuable introduction to the study of biochemistry.

Dentistry.

Curious Observations on the Teeth. By CHARLES ALLEN. Published by Messrs. John Bale, Sons & Daniellsson, Ltd. *Price 5s. net.*

THIS book is a reprint of "The first known work on Dentistry in the English Language." It was first published in Dublin in 1687, and is of interest in that it shows, in view of our present knowledge, a surprising enlightenment on the part of the author. He records his observations on "The Nature of the Teeth," their blood and nerve supply, their degeneration and the excavation of caries and stopping, also the formation and removal of scales. He describes an instrument for the removal of teeth, transplantation and "tooth-ake," its cause and treatment. He has a theory for the eruption of teeth and treats retarded eruption by cupping and scarification.

The book is rather confusing for a student, but could be noted as forming very interesting subsequent recreative reading.

Dermatology.

An Introduction to Dermatology. By Sir NORMAN WALKER. Eighth Edition. Published by Messrs. W. Greene & Son, Ltd., Edinburgh. *Price 21s. net.*

THE Eighth Edition of this work has been largely re-written and although there is much new material, yet the author has been able, by omitting reference to rare conditions, to avoid enlargement.

The book is already too well known to require description and the appearance of an eighth edition is sufficient recommendation in itself.

The alterations have been carried out in such a way that the characteristics of the book have remained unchanged. In particular such additional illustrations as have been included maintain the very high standard of the remainder.

It remains essentially a text-book for students and general practitioners, and although not a complete system yet it presents fully in an easily understood way all the commoner diseases of the skin which the practitioner is likely to meet.

General.

The Nature of Disease. By J. E. R. McDonagh, F.R.C.S. Crown 4to. 327 pp. Published by Messrs. William Heinemann, Ltd. *Price* £3 3*s*.

MR. McDONAGH in this book has attempted to explain and prove his theory of disease. As it is probable that many do not know this theory an endeavour will be made briefly to describe it. The body (cells and fluids) is considered to be in a colloidal state, the colloid particles all being charged with the correct amount of negative electricity. The effect of all drugs, toxins and bacteria is to disturb this balance of electrical charge and thus to cause changes in the physical condition of the protein particles. This changed physical condition causes in turn an alteration in the circulating fluids and body cells and thus causes the various symptoms which follow disease.

Drugs are grouped into two main classes, "condensers" and "conductors." A "conductor" is a substance which supplies electricity to the protein particles. This causes them to increase in number and also decrease in size—this is called "dispersion." A "condenser" is a substance which takes electricity from the protein particles. Two different conditions may follow from this. The particles may coalesce, decreasing in number and increasing in size, this is called hydration and is the "stable form of condensation." On the other hand the particles may lose their electrical charge altogether and leaving the colloid state go into true solution—this is known as "lysis" or the "lytic form of condensation."

All bacteria act as condensers, the sole difference in their action being in the rate of growth and efficiency. The gram positive cocci on the one hand have a rapid but very great condensing effect and cause the "lytic type of condensation." The more slowly growing, but more powerfully condensing parasites, represented by the spirochæte, cause the "stable form of condensation."

The natural defences of the body are the proteins and the cells, and the method of attack is to take the electricity from the bacteria before they can take it from the body. There is no such thing as phagocytosis in the body. Bacteria in a polymorph are there as the victors. The renowned polymorph is the feeblest of the defenders and fights by means of its granules. The lymphocytes are of more importance.

The rationale of drug treatment is to introduce a substance that rights the altered physical conditions. Thus to treat condensation a conductor is supplied. In order to be useful a drug must have a free electrical charge and be in a suitable physical state to be able to be in contact with the particle. Drugs in pure solution, ionised, are valueless. The typical conductor is a metal attached to an organic radicle, such as manganese butyrate, the larger, however, the particles to be attended to, the larger must be the molecule to which the metal is attached. In the lytic form of condensation, in which the particles are small, a small molecule is sufficient, but in the "stable form" a larger molecule, such as "606," is required, or if the condensation has resulted in molecules too large to be attacked by drugs at present known, an attempt to reduce the size of the particles should be made by first giving a drug which causes "lytic condensation" such as "intramine" and then exhibiting a condenser.

Theories of coagulation, immunity and complement fixation are expounded based on this electrical basis; for example there is no such substance as complement it is merely the electrical charge of the particles in the serum.

Space will not permit a discussion of the various methods by which the author has attempted to prove his thesis. One cannot but be struck by the considerable amount of work recorded. However, to a mind biased somewhat in the sceptical direction many of the conclusions the author draws from his experimental figures appear to be utterly unwarranted. Only one or two experiments appear to have been performed to show the action of the various drugs studied and considering the variable reaction of the rabbit (the subject of all the experiments) one cannot help thinking that many of the changes recorded are due to accident and experimental error.

The method adopted by the author in expounding his ideas is unfortunately calculated to render them even more obscure than they need be, theory, example and experiment are jumbled together in each chapter and at least half the book has to be read before an adequate idea can be arrived at as to the exact meaning of the various words used. It is also a pity that the first two chapters of the book, dealing as they do with the alleged life histories of the parasites of Leishmaniasis and syphilis have no bearing whatever on the physi-

cal chemical conception of disease about which the author is writing.

The work is well printed and has many good coloured plates and illustrations, but its price renders it improbable that it will have a large sale.

Diseases of the Gums and Oral Mucous Membrane. By Sir KENNETH GOADBY, K.B.E. Published by Messrs. Humphrey Milford, Oxford University Press. *Price* 12*s.* 6*d. net.*

THE first edition of this book was published in December, 1922, and already a second edition has arrived. Such a demand for a book of so specialised a nature shows the increasing interest, which is being taken in diseases of the mouth. The teeth and other oral contents, in common with the nasal fossæ, are becoming increasingly suspect in a larger and larger number of diseases, whose pathology has hitherto been unknown.

The book is written mainly from the point of view of the bacteriologist and is a valuable contribution; the most important chapters being the first six and last two chapters.

The chapter on periodontal disease is excellent. Equally good is the chapter on diseases originating from mouth affections, in one section of which—the poisoned heart—the author has collaborated with Dr. Strickland Goodall.

The book is profusely and well illustrated.

Middle Age and Old Age. By LEONARD WILLIAMS. Published by Messrs. Humphrey Milford, Oxford University Press. *Price* 10*s.* 6*d. net.*

IN this most interesting volume the author gives us much food for thought on the subjects of diet, auto-intoxication and endocrinology. In a comparatively small book much ground has been covered without the sacrifice of important detail. For those who would inquire further there are ample references given throughout each chapter. It is indeed a most entertaining work, well worth thoughtful reading.

Physiotherapy in General Practice. By E. BELLIS CLAYTON, M.B., B.Ch.Cantab. Published by Messrs. Ballière, Tindall and Cox, London. *Price* 10*s.* 6*d. net.*

THIS small book, by the Director of the Physio-Therapeutic Department of King's College Hospital, bridges the gap between the medical practitioner and the masseur, and fills a want which is felt by many who have no extensive experience in this branch of medicine. The first chapter contains an explanation of many of the terms used in these forms of treatment, and from this we are led through the whole series of massage and remedial exercises. A special chapter has been devoted to crawling exercises, the text being aided by a series of excellent photographs which make the exercises so much more easy to follow.

Outlines of treatment and their indications are given, covering a wide range of injuries and diseases. Many readers will, however, consider the author inclined to be conservative in his treatment of fractures from the physical side.

The print is large enough to make easy reading and there is a good index.

Physical Chemistry for Students of Medicine. By Prof. ALEXANDER FINDLAY. Published by Messrs. Longmans Green & Co. *Price* 8*s.* 6*d. net.*

THIS book is the theoretical counterpart of the author's practical physical chemistry and the two together represent the course given to students of medicine at Aberdeen University. We can safely say that our Scotch contemporaries are fortunate in having such a simple yet complete exposition of this difficult subject.

The book is well conceived, short and concise, yet no essentials seem to be omitted. Starting with the laws governing the behaviour of gases we are led on to the phenomena of surface tension and viscosity, and later to electrolytic phenomena, to H-ion concentration and finally to the behaviour of colloids and the phenomena of adsorption.

To students of medicine the practical applications are of especial interest. Thus we are told how in the disposal of sewage the contents of the filter beds are positively charged colloids retaining the impurities which are almost invariably negatively charged. Yet again we are told how the non-quantitative manner of neutralisation of toxins and antitoxins is in agreement with the phenomena of mutual precipitation of two emulsoid colloids.

All such observations are of immense interest and importance to biologists, physiologists and pathologists alike, and we should be very glad to see a complete exposition of such observations in some such volume as this. At present, although much of this work is of comparatively

long standing, yet we are unaware of any volume in which are collected together the scattered papers in the wide variety of scientific journals in which they were originally published. It is only under the authorship of some such enthusiast as Prof. Findlay that they will be brought into daylight, and the observations correlated and thus brought to the notice of research workers in medicine.

We can strongly recommend this book to all students for the higher Examinations in Physiology, and it should be read by every investigator of the laws of nature, who will be stimulated to attempt to find a basis for his observations founded on sound physico-chemical lines.

Cancer and the Public. CHARLES P. CHILDE, F.R.C.S. London, 1925. Published by Messrs. Methuen & Co., Ltd. Pages 259. *Price* 10*s.* 6*d. net.*

THIS volume of solid sense has, unfortunately, been encumbered by a duality of appeal—to the public, and to the medical profession. The public it would inform, the profession it would urge to action. Every reader, therefore, most of necessity peruse some portion of it with great detachment.

Mr. Childe would have the public informed of the early signs of cancer, in order that they might bring every tumour to be arraigned of its malignancy as soon as noticed, with the assurance, in addition, that early surgical removal would then be an efficient treatment of a purely local disease. He gives admirably chosen information as to the early signs of cancer and as to the hopeful prognosis in cases which present only such signs.

But chiefly he trusts to the medical profession to propagate the desire for such information, and demonstrates in no uncertain way that it is their plainest duty so to do, as such is the only present means of securing early diagnosis and subsequent surgical cure.

The danger of cancerophobia he faces squarely, and discounts adequately as rare in experience, the peculiar affliction of the hypochondriac.

The volume may be recommended as an elementary but excellent summation of the soundest teaching of the present-day surgical school. But the profession can scarcely need to be so taught, and Mr. Childe's arguments have all the lack of force of familiar truth.

Neither can one hope that this much needed propaganda will be to the public taste. It is restrained and solidly informative. It is to be feared that the successful propagandist will not be able to deprive the profession of theoretical discussion, or the public of sentimental, and perhaps horrid, anecdotage.

Gynæcology and Obstetrics.

Aids to Obstetrics. By NALL and LONGRIDGE. Published by Messrs. Ballière, Tindall & Cox, Ltd. *Price* 3*s. net.*

THIS small book has been written as an adjuvant to the large text-books on Obstetrics, and if accepted as such no doubt will prove of use to those learning the elements of the subject. We would be the last to advocate the use of such a book if it were intended that "Aids" should make students neglect their text-books. The reviser of "Aids," however, emphasises that the larger text-books must be used and that this little treatise should only be used as a skeleton of essential facts which the student can clothe by information obtained from the larger volumes of Midwifery.

The book is divided into a series of main headings under which the most important facts are stated. As is to be expected in such a condensed book, many points are left out which any reviewer might consider should have been inserted, and in many of the chapters we are not in complete agreement with the facts stated. Taken as a whole, the book may be found useful to some students, although it could never be looked upon as a real book of reference.

The printing and binding of the book are excellent.

Midwifery. Part I—Catechism Series. Published by Messrs. E. & S. Livingstone, Ld. *Price* 1*s.* 6*d. net.*

NO doubt the method of question and answer appeals to some, but we absolutely fail to understand how any student learning a subject for examination can afford the time to read through a catechism series in order to become conversant with the subject. Apparently, however, we are out of date, as this series has reached a third edition which of itself speaks for its popularity.

In Part I., with which we are dealing, questions and answers are supplied up to and including the management of normal labour. The printing is excellent, and we are quite willing to advocate this series to those, to whom it appeals.

Handbook of Midwifery. COMYNS BERKELEY. Sixth edition. Published by Messrs. Cassell & Co., Ltd. *Price 8s. net.*

EVERY obstetric dresser would find his time well spent in reading the above little volume before engaging on the arduous duties of extern. It is tersely written, covers the whole of the ground, and is essentially practical in nature.

The emergencies such as A.P.H. and P.P.H. are well described, as are the chapters on the mechanisms of labour, the latter being profusely illustrated. The chapters on Anatomy and Physiology, being intended primarily for maternity nurses, do not concern us here.

Were it not for the absence of certain pathological and theoretical matter, together with the description of the major obstetrical operations, the volume would amply suffice to cover the ground for the ordinary qualifying examinations.

The section on artificial feeding has been entirely re-written "in accordance with the most modern views," but still suffers, we think, from too rigid an adherance to rule of thumb methods. The dilutions of cow's milk recommended for making a modified milk are rather stronger than are generally prescribed. Indeed the whole chapter is somewhat bewildering, and is apt to leave the reader still in the dark as to the best method of tackling the Artificial Feeding problem.

Apart from this little criticism we think the author is to be congratulated upon his sixth edition.

Medicine.

Pernicious Anæmia and Aplastic Anæmia. By ARTHUR SHEARD. Published by Messrs. John Wright & Sons, Ltd., Bristol. Pp. 97. *Price 7s. net.*

THIS book, which was presented as a thesis for the M.D. in the University of Leeds, consists of three parts. The first is on Addison's pernicious anæmia, the second on aplastic anæmia, and the third an appendix of cases. With such a well-known disease the last hardly seems needed, but the rest is very interesting. It is based on 90 patients admitted to the Leeds General Infirmary from 1913—22, and especially on the last 15 studied personally by the author. Reviews of cases at the London Hospital and at Guy's respectively, have appeared recently, and it is interesting how close is the agreement between these three series in most particulars.

The main interest is when the author deals with various subjects which have been much discussed lately. He confirms the incidence of glossitis in a large proportion of cases where it is specially enquired for; he finds constant achlorhydria and objective signs of involvement of the central nervous system in a large proportion of cases; he describes the colour index as averaging 1·1, but varying from 0·6 to 1·7, while in two cases observed for some time it varied round 0·8, and decides that the colour index is always high *relatively* to the amount of anæmia, as did the reviewers of the Guy's cases; but unlike these the patients were grey haired in unusual numbers, and this was not merely due to age, because they had frequently become grey years before the onset of the anæmia. There are some good pictures of the changes in the bone marrow, and several cases are collected from the literature where there was more than one sufferer in a family.

Part II. describes in detail one very interesting case of aplastic anæmia and reviews the literature. He distinguishes sharply, and with good evidence, between pernicious and aplastic anæmia, because most of the signs of the former, apart from the blood changes, are absent, but he acknowledges that pernicious anæmia may sometime develop into aplastic anæmia which is only a syndrome. The blood changes are generally similar, except for the absence of regenerative forms; hæmolysis may occur, but generally does not, and the bone marrow changes are often hypoplastic rather than aplastic.

He divides the cases into primary and secondary forms; in the former there is probably a congenital deficiency of the marrow and sooner or later it gives up its work altogether; while in the latter the nature of the poison is known. The case he describes is of the former type in a girl aged 20, with no evidence of any increased loss or destruction of blood, and the cases he collects in the second group are mostly due to poisoning with benzol and tri-nitro-toluol, though there are a smaller number due to X-rays and arsenical treatment.

Tuberculosis. By Dr. JOHN LAIRD. Published by Messrs. John Wright & Sons, Ltd., Bristol. Pp. 130. *Price 5s. 6d. net.*

AFTER many years of practice the doctor should acquire much experience, some of which he can hand on to the next generation, and in the present book the author makes various suggestions about the treatment of patients, and especially of tuberculosis, which would be of interest and value. Unfortunately too little of the book is devoted to this, and the greater part is occupied with the thesis that in early life too little calcium is taken, with the result that tuberculosis develops, and that in later life too much calcium is taken, with the result that cancer develops. The evidence is scanty, for the occurrence of calcium in healed tuberculous areas hardly proves that the calcium was the factor which enabled the patient to overcome the infection. It is difficult to see what useful purpose can be served by the book.

Manson's Tropical Diseases. Edited by PHILIP H. MANSON-BAHR, D.S.O., M.A., M.D., D.T.M.&H.Cantab., F.R.C.P.Lon. Eighth edition, revised. Demy 8vo., about 916 pp, 6 maps, 20 coloured plates, 7 half-tone plates, 387 figures in the text, and 33 charts. Published by Messrs. Cassell & Co., Ltd. *Price 31s. 6d. net.*

BECAUSE of the many and considerable advances recently made in that branch of medicine concerned with Tropical Diseases, the late Sir Patrick Manson's Manual has been drastically revised and remodelled.

The most important new feature of this (the eighth) edition is the provision of six skeleton maps, which show at a glance the geographical distribution of various tropical diseases.

The section on Medical Zoology, which occupies nearly 200 pages, has been rewritten, and many new illustrations have been introduced. Fresh illustrations have been inserted also in many other parts of the work, and the illustrations new to this edition number altogether ninety-four, including four new full-page plates.

The editor, wide as is his knowledge of warm climates, has availed himself of the co-operation of recognised authorities in special sections. And, handiness being a consideration, though a vast quantity of new matter has had to be introduced, he has obviously striven consistently — and successfully — in preventing the new volume from becoming more bulky than the last.

Manual of Medicine. By T. K MUNRO, M.A., M.D. Pages xviii + 1033. 5th Edition. Published by Messrs. Baillière, Tindall and Cox, London. *Price 25s. net.*

MUNRO'S "Manual of Medicine" is one of the standard text-books and has reached a fifth edition in twenty-three years. It is too large a work for a "manual," but the alliteration is effective. It is a book that has always been justifiably popular and the new edition has been prepared with a view to including accounts of the more important advances in medicine, that have taken place within recent years. New articles are included on lethargic encephalitis, seven-day fever and turalæmia, considerable alterations have been made in the description of diabetes and the article on the disturbances in the rate and rhythm of the action of the heart has been rearranged and increased in value by the addition of electrocardiograms. Brief notices of digestion of the œsophagus, cœliac disease, intermitten hydrarthrosis and hydroa œstivale have been included and in other ways the book has been brought up to date.

Nursing.

Medical Electricity for Nurses. By HAROLD WIGG. Published by the Scientific Press Ltd., London. *Price 6s. net.*

THIS useful little hand-book contains much information which would serve to increase the efficiency and interest of those who are engaged in any method of electrical treatment. It is well worth reading, not only by nurses but by all, save our expert radiologists, etc., who are engaged in the practice of Medicine and wish to acquire some intelligent idea of the methods and theories of medical electricity of to-day.

A Text-Book for Nurses. By E. W. HEY GROVES and the late J. M. FORTESCUE-BRICKDALE. 3rd Edition. Published by Mr. Humphrey Milford, Oxford University Press, London. Pages xxx + 645. *Price 20s. net.*

HOW much knowledge of anatomy, physiology, surgery and medicine is it necessary for a nurse to possess? A very great deal apparently, for, in the book under review, over six hundred pages are devoted to it, although the authors do not "attempt to deal with the technical details of nursing handi-

craft," which can "only be taught in practical classes by and for nurses." It is an excellently produced book, attractively bound and filled with good diagrams and photographs and contains much that it is necessary for a senior medical student to know, but we doubt if it is really necessary for a nurse to be familiar with the microscopical appearances of any of the pathogenic micro-organisms or with the sympathetic nervous system, or with the varieties of tumours. These subjects, and many more of a nature as far divorced from the science of nursing, are included in the syllabus of training, and questions relating to them are asked in the State Examinations, but they have only a very distant relation to the technical details of nursing. The book is far beyond the ambition of the average nurse, but only just fails to fulfil a useful rôle in the undergraduate career of a medical student.

Gynæcology for Nurses, and Gynæcological Nursing. By COMYNS BERKELEY. Published by The Scientific Press, Ltd. *Price 7s. 6d. net.*

THIS excellent book covers a wide subject in few pages and should prove of the greatest use to nurses who should all know some of the essentials of this most important branch; without these essentials at her "finger-tips" no nurse can consider herself adequately trained. The book is divided into parts for convenience, so that at the beginning we find a number of chapters on the anatomy of the female pelvis, the physiology of the female genital organs, and pregnancy. An excellent chapter on ante-natal conditions follows, and then is considered here the question of dress, diet, and exercise in the pregnant woman. The toxæmias of pregnancy and labour are also clearly put before the notice of the reader. Part V. deals with gynæcology and gynæcology only. Particularly do we like the clear way in which the chapter on disturbances of micturition has been written. Immunity, septicæmia, tumours and new growths of the genital tract have been adequately considered, and a short chapter on venereal diseases has been written.

Part VI. deals with gynæcological nursing—the most important from a nurse's point of view—which would be useless except as a mechanical means to an end unless the previous chapters had been read and understood, thus allowing the nurse to realise why such and such a treatment was ordered and was being carried out. This part of the book contains excellent chapters on aseptic technique, the preparation of a patient for operation, instruments for the more common operations (excellent diagrams here being included of the instruments used), abdominal operations and the nursing of the more important complications, which have been laid before us in a precise and clear manner.

We have no hesitation in heartily recommending the book to the notice of nurses, and we should also like to congratulate Mr. Comyns Berkeley on the excellent manner in which he has dealt with a difficult subject in a style which leaves no doubt in the reader's mind as to the essential points to get hold of. The printers deserve a word of praise for the excellent manner in which the book has been published.

Ophthalmology.

Refraction of the Eye. By CHARLES GOULDEN. Published by Messrs. J. & A. Churchill, 7, Great Marlborough St., London, W. *Price 10s. 6d. net.*

OF the writing of books on Refraction there appears to be no end, but the volume under review scores over most others, in that the most ignorant reader is taken gently by the hand and led up the garden into the allotment of complete knowledge.

The print is delightfully clear and of a most praiseworthy size. It is presumably not possible for the numerous figures and their descriptive text to appear on the same or on facing pages. The more difficult problems are tackled very fully and patiently—even Gauss' theorem is made clear. In addition to the theoretical side of the subject, there is a wealth of practical help to be gleaned from the later chapters.

The book is an amplification of lectures delivered at the Royal London Ophthalmic Hospital by Mr. Goulden, for the overthrow of Part I of the Conjoint Diploma in Ophthalmic Medicine and Surgery, and several candidates have told the present writer how this book turned despair into hope, and hope into achievement.

Pathology.

Text-Book of Pathology. By ROBERT MUIR, M.A., M.D., Sc.D., F.R.S. pp. viii + 774. Published by Messrs. Edward Arnold & Co., London. *Price 35s. net.*

A STUDENT'S choice of a text-book of pathology is a very difficult matter. There are a large number for his selection and most of them have good qualities to recommend them. Some of them are excellent for pathologists, who have already mastered the fundamental principles of the science, and take some pathological knowledge in the reader for granted, although admittedly written for students; most of them become adequate when they have been read for the second time and in the light of knowledge gained elsewhere; but a text-book that is clear and intelligible when first read by a student, ignorant of pathology, is a very real need in medical literature. Such a book is the one under review. It combines morbid histology and naked eye pathology in a manner that simplifies the entire science and the same principles are shown to apply to similar conditions, occurring in very varied forms. Particularly good is the chapter on Diseases of the Blood, a chapter which will clear up for all time the confusion of long and symphonious names, which is too apt to surround the study of these conditions. It is in parts rather short, as in the account of renal calculi, but the volume as a whole is an excellent and clear exposition of pathology and its relation to disturbances of function and is very warmly recommended. It is well illustrated and almost free from printers' errors.

Pathology, General and Special. By J. MARTIN BEATTIE and W. E. CARNEGIE DICKSON. 3rd Edition. Published by Messrs. Wm. Heinemann (Medical Books), Ltd., London. *Price 42s. net.*

THE fact that the book is now making its eighth appearance on the market since 1908 is sufficient guarantee for the excellence of the subject matter contained within.

The features which assured success on first appearance have been preserved, and the additions can only enhance its popularity.

The work has been profusely illustrated, a feature that should enable the reader to acquire the information he is seeking with a minimum of time and effort.

The whole has been largely rewritten, and new matter of importance has been added, e.g., the chapter on Fever, and a summary of recent pathological work in connection with diabetes. As in the first edition, free use has been made of the published work of others, and, wherever possible, suitable acknowledgment of such sources has been made.

The two volumes of General and Special Pathology, which have hitherto been published separately, have now been combined to form a single book, which is warmly recommended. The 17 coloured plates are excellent and the work, of over one thousand pages, will be found to contain a full, intelligible and readable account of this most important subject.

Pediatrics.

Essentials of Infant Feeding. By E. A. BARTON. pp. viii + 80. Published by Messrs. H. K. Lewis & Co., Ltd., London. *Price 3s. 6d. net.*

THE feeding of infants is a subject about which there is a great variety of opinions to the mystification and despair of the student. Especially is this so in infant dieting in terms of calories, when the prescription of a feed involves complicated mathematical calculations. It is in the chapter on the art of artificial feeding that this little book will be found of greatest benefit. The author's views are stated clearly and in simple language, and his very easily remembered caloric formula will prove especially welcome. The whole volume admirably fulfils the purpose for which it is written, namely, the instruction of students in as few words as possible of the facts related to infant feeding that it is essential for them to know, and as such it is warmly recommended.

Lectures on Diseases of Children. By ROBERT HUTCHISON. 5th Edition, revised and enlarged. Pages xii + 460. Published by Messrs. Edward Arnold & Co., London. *Price 21s. net.*

THIS book combines the entertainment of a novel with the education of a text-book. Reading it does not constitute hard work. It contains thirty-six lectures and claims to "cover pretty completely the medical aspects of the diseases of children, so far, at least, as the general practitioner is concerned." The clinical pictures of the various diseases are well drawn and illustrated by photographs and the treatment in each case is that, considered by the author to be most effectual

In some cases this is not in accordance with the latest views of the majority and, where that is so or where the author's own views or opinions have become changed or modified, an announcement to that effect has been made in a footnote. We should like to have seen these footnotes embodied in the text and their places taken by descriptions of the less modern forms of treatment, if they had not been omitted entirely. The book has reached the fifth edition, which is in itself a testimonial to its value and, in its new form, revised and enlarged, is bound to continue as popular as ever.

Venereal Diseases.

The British Journal of Venereal Diseases. Edited by Col. L. W. HARRISON and Dr. E. R. T. CLARKSON. Published Quarterly by Messrs. Constable & Co. *Annual Subscription* 20*s*.

ALTHOUGH any addition to the already large number of publications may fill one with apprehension at the ever increasing knowledge to be kept up with, a perusal of the first number of this journal results in a genuine welcome from all who are interested in the study of venereal diseases, and who will agree that a long vacant gap has at last been filled by a journal of high standard.

The introduction by Sir Humphrey Rolleston lays stress upon the present need of such a journal in view of the increasing interest and recent work in this subject.

Col. Harrison supplies interesting details of the activities of the public health services in relation to venereal diseases.

Dr. E. P. Cumberbatch and Dr. C. A. Robinson discuss the treatment by diathermy of gonorrhœa in the female.

Notes on the complement fixation reaction in gonorrhœa are contributed by Dr. W. J. Tulloch.

The present day interest in bismuth therapy is well met with two articles, one by Col. E. T. Burke, in which the administration of various bismuth preparations in the treatment of syphilis is reviewed, and Dr. S. Lombolt, of Copenhagen, discusses their pharmacological action.

Dr. R. N. Ironside discusses the technique and results of treatment of general paralysis by malarial injection.

The volume is concluded with notes by Dr. H. C. Semon on the differential diagnosis of various skin affections which may be confused with syphilitic lesions.

The general appearance and print of this volume are attractive and the high standard of its contents will commend it to all.

Correspondence.

Guy's Museum of Antiquities.

DEAR SIR,—I am writing to inform you of three new additions to the Museum of Antiquities which will no doubt interest many Guy's men.

The first is a document dated July 15th, 1741, signed by Sam E. Sharp, acknowledging receipt of Twenty-nine Guineas from Mr. Edward Hale, whom he promises to enter as a pupil in Anatomy, in Mr. Guy's Hospital. It further states that should Mr. Sharp die before that time his Executors are to return the money.

The signature is probably that of Samuel Sharp, the first great Surgeon appointed to Guy's. He was a pupil of Cheselden, and was elected Surgeon to Guy's on the retirement of Robert Baker in 1733.

The second also concerns Edward Hale, and is an indenture under which Edward Hale is apprenticed to a Thomas Stilwell of Petersfield, and is dated 6 Nov. 1735. The following excerpt from this agreement is most interesting :—

"And the said Thomas Stilwell in Consideration of the sum of ninety Pounds of lawfull money of Great Britain, to him in hand well and truly paid by the said Audery Hale and William Hale . . Whereof is hereby acknowledged the said apprentice in the art or mistry of a Surgeon which he now useth shall teach and instruct or cause to be taught and instructed the best way and manner that he can finding and allowing unto his said apprentice sufficient Meat, Drink, Washing, Lodging and all other necassarys as well in Sickness as in health during the said Term."

The third new exhibit has been presented by Mr. Morrell (Grattan, Bookseller, Boro.). It is a map of London, Westminster and Southwark as they appeared in 1543, from a drawing by Anty. Van den Wyngrerde, Sutherland Collection, Bodleian Library, Oxford. The map is numbered, and details all the most important places in London at that time. It also shows the buildings on old London Bridge, the walls of London, stretching from the Tower to Blackfriars, Gates, and Friars, etc. The size of the map is 4 ft. 10 in. long by 1 ft. 5 in. wide, and covers the whole of the area from the Palace of Westminster to Woolwich on the North side, and from Lambeth Palace to Greenwich on the South side of the Thames.

These exhibits can be seen at any time on application to the Librarian, between the hours of 9.30 a.m. and 5 p.m.—I am, Yours truly,

GEO. A. WINSTON,
Librarian.

The Wills Library,
Guy's Hospital, S.E.1.
May 1st, 1925.

Fison Memorial Lecture.

DEAR Mr. Editor,—I should be glad if you would allow me to explain to those of your readers who may have been unfortunate enough not to obtain tickets for the first Fison Memorial Lecture, the procedure adopted for the disposal of the available tickets. The Lectureship was founded as a result of an appeal for funds to the general public. The income from the Fund did not justify the Fison Memorial Committee in taking a large hall, although it was felt that there would be a big demand for tickets. Partly on the ground of expense, therefore, and also partly because Dr. Fison was a member of the Teaching Staff of the School for so long, it was decided to hold the Lecture in the Physiological Theatre of the Medical School. All the individual subscribers, excluding students, those students who had been responsible for collecting subscriptions, and a limited number of eminent Physicists, were invited to be present, and a very large number of them accepted the invitation. A large demand for tickets came from the various learned Societies whose members were interested in the subject of the Lecture, but we could only meet, approximately, half of this demand. The gallery was reserved entirely for students.

You will see, therefore, that for this, which is a Public Lecture established as a result of an appeal to the general public, approximately half of the tickets have been distributed to Students and members of the Staff of the Hospital.

I very much regret that it was impossible to send tickets to all who wished to be present.—I am, Yours truly,

T. B. JOHNSTON,
Secretary, Fison Memorial Committee

Medical School,
Guy's Hospital, S.E.
May 6th, 1925.

Hospital Information, etc.

Guy's Hospital Chapel.

THE Superintendent presided over the Annual Meeting of the Congregation in the Governors' Committee Room on April 30th. The Acting Chaplain read the Report of the Chapel from Easter, 1924, to Easter, 1925. Special preachers have visited the Chapel as usual in Advent and Lent. The Bishop of Southwark preached to a large congregation on Ash Wednesday. On Good Friday services were held this year at 10.30 a.m. and 8.15 p.m., instead of during the three hours.

The outstanding event of the year was, of course, the Commemoration Service in Southwark Cathedral on our two-hundredth birthday, which has already been fully described in the GAZETTE. Mr. H. St. J. Bradford, after some years at Guy's, has been appointed Organist to Gibraltar Cathedral, and is succeeded by Mr. R. W. Downes of the Royal College of Music.

The House Committee and the Chapel Committee have devoted considerable attention to the reports of various architects and experts on the redecoration of the Chapel, and it is hoped that before long now it will be possible to announce the acceptance of a definite scheme, to be carried out by instalments as the necessary funds are raised. Subjoined is the Statement of the Chapel Fund Accounts to December 31st, 1924:—

Receipts.	£	s.	d.
To Balance	78	14	8
„ Collections—			
General Wards	33	4	0
Bright Ward	22	14	0
Chapel	18	16	10
Boxes	8	6	1
Special Collections	16	8	6
	£178	4	1

Payments.	£	s.	d.
Flowers	18	15	8
Oil and Wafers	6	9	2
Books and Printing	13	2	10
Furnishing and Equipment...	9	7	2
Travelling Expenses, etc.	8	10	5
Postages	5	16	8
Special Collections—			
Oxford Mission to Calcutta	2	3	7
Universities Mission to Central Africa	4	2	7
Hospital Sunday Fund...	1	15	3
Society of the Sacred Mission ...	2	3	11
St. Dunstan's	1	8	10
Guy's Hospital Maternity Samaritan Fund	4	14	4
Balance carried forward	99	13	8
	£178	4	1

Audited and found correct,
W. J. CURRY,
Corporate Accountant.

There were four vacancies on the Chapel Committee. These were filled by the election of Sister Astley Cooper, Sister Bermondsey, Nurse Foster Smith and C. W. Marshall, Esq.

Guy's Hospital Gazette.

A FEW bound volumes of the Guy's Hospital Gazette, in light or dark blue, are for sale at 10s. 6d. per volume. These comprise the following years:—

Light Blue.—1896, 1897, 1898, 1899, 1903, 1904, 1905, 1908, 1909, 1910, 1911, 1914, 1915, 1916, 1917, 1919.

Dark Blue.—1897, 1898, 1900, 1901, 1903, 1904, 1907, 1908, 1910, 1911, 1912, 1913, 1914, 1915, 1918, 1919, 1920, 1921, 1922.

All readers, wishing to secure any of the surplus stock, must apply immediately to The Wills Librarian, Guy's Hospital, S.E.1., as it will be impossible to supply back numbers after the above stock has been disposed of.

Change of Address.

Capt. G. D. Gripper, R.A.M.C., Guards Depot, Caterham, Surrey.

W. J. Barnard, Esq., M.C., L.D.S., 2, Church St., Epsom, and Ruthwell, Manor Road, Cheam.

N. L. Peregrine, M.D., M.R.C.S., Surg. Lt.-Cmdr., R.N., Branston-by-Belvoir, Grantham, England.

The Bicentenary Number.

THERE are still a few copies of the Special Bicentenary Number to be had from the Manager, Gazette Office, Guy's Hospital, at half-a-crown a copy. This issue is not being repeated, and it is certain that any future edition will be greatly increased in price. Those who wish to obtain copies should write soon, to make sure of obtaining them. For those who have not yet seen a copy we would say that the special number contains Histories of the Hospital, the Medical School, the Dental School, the Nursing Staff, the Gazette, the Ladies' Association, and most of the Athletic Clubs, including an excellent account of Guy's Rugger from the earliest days, by Dr. Allport. This is a number that you will be sorry to miss. Send for a copy now.

Specialities.

Symons' Devonshire Cyder.

Messrs. JNO. SYMONS & Co., Ltd., Totnes, Devon.

WE have pleasure in announcing to our readers that they can obtain an excellent cyder made under perfectly hygienic conditions from the best Devonshire apples by Messrs. Jno. Symons & Co., Ld.

It is well known that Cyder is not only a wholesome and refreshing beverage, but it is highly recommended by leading physicians as a remedy for Insomnia, Gout and Rheumatism. After strenuous exercise at tennis, boating, etc., it is an ideal drink.

Publications Received.

The Isis, The Medical Review, The Nursing Times, The Medical Journal of South Africa, The St. Bartholomew's Hospital Journal, The Cambridge Gownsman, The Prescriber, The Long Island Medical Journal, The Fight Against Disease, The British Medical Journal, The Sphinx, The Hospital Gazette, The St. Mary's Hospital Gazette.

Birth.

WICKENDEN.—On April 24th, 1925, at "The Beeches," Perth, N.B., the wife of Stanley Wickenden, M.R.C.S.Eng., a son.

Marriage.

BARNARD—MELVILLE.—On the 28th February, 1925, at St. Cuthbert's Presbyterian Church, West Norwood, by the Rev. J. H. Bryden Markinch, B.D., assisted by the Rev. J. Hay Colligan, M.A., William John Barnard, M.C., L.D.S., R.C.S. Eng., youngest son of Mr. and Mrs. J. H. Barnard, Upper Norwood, to Elizabeth Marianne (Elma), daughter of Mr. and Mrs. C. J. Melville, West Norwood (late of Kirkcaldy).

Ed.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

SUMMER is here prematurely; so are the "Oxford Bags." The Park is filled with sunshine and a sprinkling of unusual trouserings. We foresee that both of these innovations may be carried to excess and are grieved to hear, though not from the Patron himself, that a prize is being offered at the Fancy Fair, now being held at the Royal Botanic Gardens, for the best pair of Oxfords. The Patron is said to be a member of the Hospital Surgical Staff, which only shows how far-spread is the interest in the new fashion. For ourself, we hope to die unaffected by the extravagances of modern tailoring, that we may have inscribed above our grave that beautiful Chaucerian line—

"Full longe were his legges and full lean."

The early burst of sunshine has been responsible for yet other quaint sights in the Park and a few days ago much interest was caused by the arrival of one of the more unusual migratory Borough birds, to wit, a parrot. Taking up its position on the tree, nearest the Colonnade, it gave vent to the cry of its kind, which seemed to infuriate the resident sparrows. Unlike other residents, these sparrows seem to form a conservative, intolerant community and, gathering around the newcomer, shrieked and twittered at him. It was the old question of colour. Green birds are not welcome in the Borough and it is considered that they should attend Parks in their own country. It is thought that with a greater and more intimate knowledge of his character, the Parrot may grow to consider himself the equal of the British sparrow, who will in consequence lose prestige abroad.

Unfortunately, we think, the insulted visitor did not stay, but before he left, he brought to light a very singular lack of ornithological knowledge in one of our most eminent Medical Registrars. This very clever physician stoutly maintained that the parrot was itself a sparrow, and no exhortations to consider the length of tail, the green colour of its feathering and the peculiar parrotid squawk could shake him in his opinion. This learned Registrar can undoubtedly distinguish a normoblast from a megaloblast, yet fails to differentiate between a parrot and a sparrow. It is really very curious.

To the lucky nurses, who grace the reserved patch before the Baby Ward and to those of the hospital workers, who sun themselves on the newly-sown grass, the rise in the temperature has proved very gratifying, but it has been otherwise with the candidates for examinations. The stress and strain of interrogating nervous examinees must be very wearying and, during a heat-wave, almost intolerable, so that it becomes necessary to evolve some form of interrogation that causes the minimum of strain to the examiner. A single, all-embracing phrase such as "What would you do next?" is perhaps as good as any and is an excellent test of clarity of thought in the examinee. "What would you do next?" may be repeated again and again until the confused candidate is unable to find more answers and, should he then confess that he does not understand what the examiner wants, the answer comes at once

without effort, "It is quite easy; what would you do next." This usually causes the candidate to leave the room in high dudgeon, but leaves the examiner as cool as could be expected under the existing weather conditions.

We reproduce the following account of an incident in the Prince of Wales' tour in South Africa, from a South African newspaper—

"The Adderley Street crowd that greeted the Prince after he left the luncheon at the City Hall was not nearly so big as before, but ropes were still necessary to keep the people back. He received a great ovation as his car turned the corner of Darling Street. As the car went slowly down the street there occurred one of those incidents which will always be remembered in some Peninsula homes.

An old Guy's student was on one of the balconies and as the Prince passed he gave Guy's old cry. His voice could be heard above all the rest and the Prince heard it. He turned to see who it was, and, with a smile, waved his hat cheerily in that direction."

Obituary.

Dr. W. W. Leigh, J.P.

DR. W. W. LEIGH, J.P., of Llansannor, Cowbridge, whose death occurred so suddenly last April, was a true type of the old family physician and English gentleman. A native of Nelson, he followed the same profession as his father before him, and leaves one of his sons still "carrying on." The late Dr. Leigh was not only a doctor; he was the friend of all those with whom his work brought him into contact, and he had the happy knack of always remembering his boyhood friends, however humble in life their stations. Proof of this was shown at his last public appearance in Nelson some months ago when the new Unionist Hall was opened. The doctor, at that ceremony, recalled all the old inhabitants by name and dwelt longingly on the happy times they had spent together. Although he had retired from his practice in this district he was a frequent visitor to the old village and there was always the kindly smile and cordial handshake when he met those he knew. The world is all the poorer for the death of such a fine gentleman, and the sympathy of Guy's, whose student he was, goes out to the family in their great bereavement.

Reviews.

An Introduction to Practical Bacteriology. By T. J. Mackie and J. E. McCartney. Published by Messrs. E. & S. Livingstone, Ld. Edinburgh. *Price* 8*s.* 6*d. net.*

THIS book is a guide to the practical study of bacteriology and is to be taken into the laboratory. It is not a text-book, but a description of bacteriological methods. The first seven chapters are devoted to the general biology of micro-organisms, immunity in relation to practical bacteriology, the use of the microscope, cultivation of bacteria, staining motheds, animal inoculation and autopsy and special bacteriological methods, while chapter eight, which comprises nearly half of the entire book, contains the methods of bacteriological diagnosis.

The book is quite elementary, yet contains all that it is necessary to know from the point of view of the general practitioner. It is written clearly and the type is large, and the book is recommended to those who wish for a practical hand-book of laboratory methods.

Handbook of Bacteriology. By J. W. Bigger. Pages xv.+413, 5 coloured plates, and 66 figures in the text. Published by Messrs. Baillière, Tindall & Cox, Ltd. *Price* 12*s.* 6*d.*

AN attempt to produce a text-book for students, unencumbered with the large amount of extra knowledge necessary to the specialist, is always laudable and in the one under review the author has succeeded admirably in expounding the principles of bacteriology free from the confusion of its many special refinements. There is in this book no small print to be ignored; it is all large print to be read and with the added attractions of its coloured plates and figures in the text, it should certainly find favour among medical students.

Perineal Prostatectomy.

Special Lecture by Mr. A. R. THOMPSON, Ch.M., F.R.C.S., 19th May, 1925.

GENTLEMEN,—When there are two or more operations in practice for the relief, or cure of certain conditions, students are, perhaps, a little apt to consider each of them as being practised by particular operators under every circumstance.

This is clearly the case in those operations which have been designed for the relief of enlargement of the prostate.

Thus we see some surgeons removing the prostate by the suprapubic route, whilst others remove the disease by the perineal route.

No doubt it is better, that in a serious operation such as prostatectomy the surgeon should do that operation, to which he is accustomed. But in hospital practice it has been becoming clear to me that each of these operations has its place in surgery, and that the main thing is to do that operation, which will do most good to the patient.

Some surgeons, in addition to only performing either one, or the other, operation, condemn that which they do not practise, as being a poor operation, but if we bear in mind that there are certain prostates which are capable of being more easily removed by one of the alternative routes, so much the better for the patient.

During the past year it has been my privilege to have the opportunity at this hospital of studying the perineal route, and its technique, for the removal of the disease of the prostate.

With this operation the name of Hampton Young is associated.

Some English surgeons condemn the perineal route out of hand, and they assert that Young has had to devise certain operations for these cases in which the operation has resulted in fistulous formation or incontinence, as if suprapubic fistula never occurred, and apparatuses for the collection of urine were unknown after suprapubic prostatectomy.

Now, there are, I think, certain disadvantages about the suprapubic route, and it will be well if I mention them now.

First of all, unless we are prepared to sew up the bladder and the abdominal wound and get primary union, we are going to have drainage against gravity, and the urine will be apt to stagnate in the bladder, or worse still, in the superficial wound.

I have published elsewhere a series of cases in which there was primary union of the bladder and the abdominal wound. These cases number about 50 with a percentage mortality of only 4 per cent. or under. But in many cases it would be most unwise for the surgeon to suture the wound on account of the state of the renal functions.

Secondly, with enucleation of the prostate by the suprapubic route, there is a good deal of pulling about of the base of the bladder, and thus there may be considerable shock, owing to the peritoneum being pulled on. This must especially be the case where the prostate is a difficult one in removal.

Now a patient who suffers from a good deal of shock, and is going to drain against gravity, is not in the best position to stand any sepsis in the wound, and so we may say that in some cases of suprapubic prostatectomy, the patient starts his post-operative state at a considerable disadvantage.

In addition it must not be forgotten that the bladder mucous membrane is incised twice in the suprapubic operation, once when the front and upper part of the bladder is incised in order that the surgeon may get inside, and secondly when the base of the bladder is incised for the purpose of enucleating the prostate.

I believe that with the perineal route there are three great advantages, namely, absence of shock, in that the peritoneum is not pulled upon in the enucleation of the growth; drainage after the operation is aided by gravity, and thirdly, certain difficult conditions of the prostate gland such as general hyperplasia and carcinoma are more easily removed by this route than by the suprapubic route.

The first prostatectomy that was done by me by the perineal route was in a case which was sent to me by Dr. L. K. Watson, of Watford. He agreed with me that the condition was malignant, but that the cancer had not got beyond the bounds of the prostate. Now there are surgeons who will not operate upon cancer of the prostate by any route, and I must confess that, though my results have not been at all bad when the suprapubic route has been adopted, in the case of malignant disease, still I was not satisfied with the operation, and thought that the perineal route might, perhaps,

be tried. I am bound to say that the results exceeded my anticipations. Mr. Gaymer Jones and Mr. G. T. Watson of Tunbridge Wells were present at the operation. The operation resolved itself into a deliberate attempt to remove the cancer with the knife as far as possible, and the finger was hardly used at all during the whole time of the operation. The fact that stands out in my memory is this: that if the disease had been still more extensive than it was actually, I could still have removed the growth quite cleanly.

I shall now describe the operation as practised by me at the time because it affords a standard type of procedure in such cases. I have, however, been led to adopt modifications of this operation as I have been enabled to do further operations on patients in Guy's Hospital. The patient being anæsthetised by Dr. Eric Scott, was placed in the lithotomy position. It may be well to place a block under the patient's buttocks in order to raise the perineum, but this plan was not adopted in this case. A horse-shoe incision was made reaching from the anterior part of the left tuberischii and curving forwards to the posterior part of the bulb ,and then curving backwards to the front part of the right tuberischii. If you want to visualise this incision read Sir Harold Stiles' short description of the operation in the article on Surgical Anatomy in Cunningham's Text-book on Anatomy.

I deepened the incision, and divided certain structures, which you are quite familiar with, and exposed the prostate gland, which was fortunately quite low in the perineum. Continued traction was exercised upon the prostate gland with Lane's forceps and the base of the bladder was easily exposed. An incision was made round the base of the bladder above the prostate and thus the gland was separated completely from its bladder attachments. The prostate was then gently pulled into the wound and the whole organ removed by cutting completely across the urethra in front of and below the prostate. The diseased portion, including the prostate was thus completely and cleanly removed. The base of the bladder was then sutured to the upper part of the divided urethra and a catheter inserted. The wound was packed with gauze, and the patient put back to bed. The operation took about 40 minutes. There was no shock to speak of and Mr. Scott was, I think, quite satisfied about this point. Compare this operation with the hopeless position that one may find oneself in when one is trying to remove a malignant prostate by the suprapubic method. Another gratifying feature was that there was no bleeding to be anxious about, and as you know there may be a great deal of bleeding in a suprapubic operation for a similar state of the prostate.

The patient did well and was discharged home in about six weeks' time, but he might have gone home before this, had it not been my first perineal operation for the removal of malignant disease. He reports well now, and the operation was over a year ago, and all that I can feel in the rectum is a nice soft band in the region of the prostate which was removed. This band corresponds to the line of sutures that was put in between the bladder and the urethra.

The next case that was done was that of an elderly man with a simple adenomatous condition of the prostate gland. The operation was actually over in about five minutes, and the adenoma of the prostate was quite cleanly removed. Mr. W. Payne, the H.S. at the time, thought that about four days after the operation the patient had a slight stroke, but if so it was a very small one, and I never satisfied myself that he ever had one.

The next case was a bad one. It was a case of malignant disease of the prostate and there was infiltration of the tissues outside the prostate, and I was very unwilling to do anything, especially as the patient was arterio-sclerotic and over 70 years old, but he was in such pain and misery that one could not help trying to do one's best for him by operation.

I was a long time removing the malignant disease and was much hampered by not having a heavy and curved pair of scissors to divide the tissues above the prostate. The patient died on the fourth day from acute sepsis, due, no doubt, in part to the shock of the operation.

The next case was that of a man who was anxious to have something done for him in order that his retention symptoms might be cured. He appeared to be a good life, although he was over 70 years old, and I removed the prostate in two parts by the perineal route. The operation took exactly four minutes and there was no shock, but on the fourth day the the patient had a very high temperature and some paralysis, and Mr. Payne thought there were signs of cervical embolus. (*Vide infra*).

But all the remainder of the cases of perineal prostatectomy have been a success.

You may recollect that in the fatal malig-

nant case of prostatectomy I said that I had some difficulty in freeing the prostate from its upper attachments. What those attachments are I will tell you now and shall describe an operation which was undertaken for the relief of a general enlargement of the prostate.

Occasionally, as you know, the whole prostate is the seat of a general hyperplasia, and it becomes necessary to remove it. Now in this type of case the whole prostate is removed, and such removal may be attended with considerable difficulty, at any rate when the suprapubic method is adopted. But in one case on which I operated in the presence of Messrs. Ogier Ward and Kenneth Walker, the prostate which both agreed with me was the subject of general hyperplasia, was quite easily removed intact by the perineal route. The case which I wish to draw your attention to is this. A patient had some of the symptoms of enlarged prostate, and he agreed to an operation. I made the incision in the perineum and dissected between the two lateral parts of the "levator ani," and reached the prostate, which was easily enucleated from its lateral and inferior attachments, but I had some difficulty in removing it from its superior attachments. I found that one could do nothing with the finger, so I turned the prostate as far into the wound as I could, and deliberately severed the parts which lay above it and found these parts to be the boundary line between the vesiculæ seminales and the prostate. After division of the tissue and subsequent easy removal of the gland I found the vas had been cut across just at its entrance into the prostate, and of course this is inevitable if you have to remove the whole prostate and not merely an adenoma. Now just think how difficult this might have been by the suprapubic route, and what a great deal of shock there might have been when the removal of such a prostate was undertaken. But, in fact, there was hardly any shock and the patient has done extremely well, and has lost all the symptoms from which he was suffering before the operation. Now this operation was followed by another case, and as the patient was an old Guy's man I thought I would do better for the patient if I were to do a suprapubic operation. I did remove the whole prostate in this case, but the operation though perhaps quite as clean an operation as the previous perineal operation was without doubt a difficult one and might have been very difficult had I not known the condition of affairs. And I have no hesitation in saying that the term "fibrous prostate" is used frequently for this condition of general hyperplasia of the prostate, and is called so as the prostate is hard and not very large, and is difficult to detach from its normal surroundings. I know no such thing as fibrous prostate. In a large number of cases the surgeon is removing either this generally enlarged prostate or he has got too far back and is removing vesiculæ seminales. The only enlarged prostates that I can recognise at the present time are adenomata, carcinomata, and general hyperplasia. Sarcoma is very rare in my experience.

But I have had three cases of enlarged prostate, all occurring in much younger men than the ordinary enlargement of the prostate, and in all the cases there was considerable doubt as to the nature of the enlargement. In one case Dr. Laidlaw would not say definitely whether the growth was inflammatory or cancerous, and in another case Dr. Nicholson would not say whether the growth was sarcoma or inflammatory. In these last cases of a doubtful nature, I should certainly incline to the perineal route for their removal. Of course we are not considering at all now those enlargements of the prostate which are due to gonorrhœa or tubercle. They are unequivocally inflammatory.

The next case that I have to tell you about as occurring in hospital practice is that of a man, who was anxious to have something done for him. He was aged 72 and his radial artery seemed all right, and there was no clinical evidence of heart disease or emphysema.

The operation was quite a short one, and the patient hardly, if at all, lost colour during or immediately after the operation. He appeared to be going on very well, when on the third day after the operation he had some paralysis of the upper limbs and ran a very high temperature, and Mr. Payne thought he must have got an embolus in the cervical region of the cord.

The high temperature did not diminish, and the patient died on the fourth day. At a partial autopsy I made out that the bladder did not communicate with the perineal opening by anything but a very small connection. But we must conclude if we wish to be perfectly fair that this death would not have happened unless an operation had been done, but at the same time the fatal result might have occurred after any operation. (*Vide supra*).

The next cases have all been successes, so far as I have been able to tell, and they have

done quite as well as could have been expected after they have left the hospital. They are five in number. The prostate in none of the cases was malignant. One of these cases was operated upon by me, and Mr. F. J. Steward was very kindly present at the operation. The usual horse-shoe incision was made and the prostate was removed in two pieces, clearly both adenomata. There was a slight piece of 'levator ani" on each adenoma. As I removed the left one there was a gush of urine from the bladder. Except in the last case that I told you about there has been an opening into the bladder, indicated by a gush of water. But in some cases the bladder certainly is not open, and this brings up for consideration another advantage of the perineal operation over the suprapubic route, and it is that the bladder may not be even opened, though I think this must be rare, but it is certainly not opened more than once. But in suprapubic operations the bladder must of necessity be opened twice, once when the bladder is opened in order to get inside, and secondly when the mucosa is incised at the base of the bladder in order to enucleate the prostate. This single wound or none at all must, I think, be of enormous advantage when the question of shock is considered.

The patient from whom these adenomata were removed caused me a little anxiety after he was discharged from the ward, as he had incontinence, but I need not detain you with an account of what was done; suffice it to say that my H.S., Mr. Berry, and I, had a talk over the man, and passed an instrument upon him, and so impressed him that he came up next day to the ward and told us with great glee that he had suddenly secured control over the passage of water. I believe in this case there was a certain amount of pain and inflammation in the urethra and that it was owing to this that the patient had some loss of control over micturition.

The other cases have been uneventful in their recovery. The results as regards the getting rid of troublesome symptoms have been excellent.

But I wish to tell you about the last but one case that I did by this method, as I introduced a modification of the usual operation that I think may be a not unimportant one. Instead of the usual horse-shoe incision I only used an incision practically confined to one side. In this case the incision was commenced at the posterior part of the bulb just to the right of the middle line, and curved backward to the anterior part of the left tuberischii. A double adenoma was removed in one piece from the prostate without any difficulty at all. You will very properly ask why I adopted this modification of the incision. The answer is that the smaller the incision, other things being equal, the better for the patient, and as the urine was perfectly clear, and there had been no instrument passed into the bladder recently except with the utmost antiseptic precautions, I felt that from the point of view of the patient he was not likely to have any sepsis in the wound and that it would not be necessary to combat sepsis in the perineal wound, but the main reason was that the horse-shoe incision may possibly lead to the division of important vessels and nerves on both sides of the pelvic outlet, and I think that the half incision that was made in this case certainly was associated with less bleeding than in any of the other operations, but it is not so much because of the vessels that I used this incision, but because, you will remember, that near the vessels there may be important nerves, and if you can avoid wounding these structures, so much the better for the patient, and it is clear that an incision on the one side only must be accompanied by an absolute inability for the operator to wound the nerves on both sides, and therefore paralysis of the perineal muscles is less likely to occur.

I was anxious about this case as he was the father of an old dresser of mine but I am glad now that I did the perineal operation in his case as I am sure he was much more comfortable with the small perineal wound than he would have been with the usual suprapubic wound.

I think that I have told you enough about the perineal operation for the removal of an enlargement of the prostate and we may now consider perhaps that there is something to be said for the method, although when you read it up in the books you may be alarmed by the number and nature of the instruments which are recommended in some text-books. You need not be alarmed.

My dresser, Mr. Radcliffe, who was assisting me in this last case will tell you that I only used two instruments, a knife and one Lane's forceps. There are instruments which are passed into the bladder for the purpose of pulling down the prostate into the wound. So far I have not made use of them, and I do not make out that they are in the least necessary in the operation that I have described to you. A very proper question may

occur to some of you in connection with the operation, and it is the question of the rectum.

The only thing you should have to do with the rectum is to cover up the anus with a piece of gauze and forget the rectum. After you have deepened the incision and have introduced your finger remember to work forwards Make the retro-pubic region your goal and there you will find the prostate.

Finally, Sister Cornelius tells me that these perineal cases are much more easy to nurse after the operation and that she is less anxious about the occurrence of bedsores than when the suprapubic method is adopted.

I do not propose to go into the relative merits of the two operations further.

I have not done enough of the perineal operation to be able to speak with any authority about its death rate, but I do feel that I have done enough to be able to say that it must not be condemned off hand because you may never have seen it performed. I am inclined to think that in some cases it may be the better of the two, and I am inclined to think that for malignant disease, it may be the only justifiable method of removal of the disease.

Do not be frightened of bleeding. I can honestly say that, in my experience, bleeding with any perineal wound is liable to be much exaggerated, and that you do not have trouble with this complication.

It may well be that as in the case of the tramp calling at a wayside farm, though the front door may be considered, more may be gained by going via the back way.

I wish now to describe the last operation that I did.

The man was a countryman, who was aged about 62. Mr. Clarkson, who sent him up, thought that he had a malignant prostate, and at first I did not think so, but later altered my mind and considered that he had cancer of the prostate. The man was anxious to have something done as there was great pain down the right leg, and he also had retention troubles. The right leg was stiff, so that when it was necessary to put him in the lithotomy position there was some difficulty in fixing his legs and we could not get them as wide apart as we should have liked, but this, I am glad to say made no difference to the perineal space we had at our disposal. Mr. Ogier Ward and Sir T. Carey Evans were present at the operation. There was no difficulty in reaching the prostate in the way which I have described. I worked my finger round the enlargement, and as I reached the upper limits of the prostate, there was a sudden escape of urine from the bladder. I then turned the prostate down and found its upper attachments, and was able to display to the spectators the actual condition of affairs. I may say that the disease was not cancer, but we found that there was a large adenoma projecting into the bladder, whilst the rest of the prostate was not large at all. The reconciliation of clinical findings with the anatomy actually displayed would form a subject of a lecture in itself, and I do not propose to enter into that question now.

The actual mechanical condition was admirably displayed and this forms another advantage of the perineal operation, though one of secondary importance.

But in this case, the adenoma was one of those growths which one would have simply removed by a suprapubic operation, but we were able to see, and remove the whole organ. But it had to divided from the vesicles, and the vas was seen on both sides when the organ was removed.

I adopted the plan recommended by Mr. Berry, my H.S., and we passed a No. 13 Coudé catheter and tied it in and then packed round the catheter in the perineal wound. I cannot say whether this operation is going to be a success, as it is too soon after the operation, but the description will demonstrate that a stiff leg does not preclude the perineal route, and the description shows, as I think, that the anatomy of what you are doing is much better displayed than when the suprapubic operation is done.

The particular patient who was operated upon in this case was a florid, healthy-looking man, and at the end of the operation Mr. Schofield, who kindly gave the anæsthetic, was struck with the good appearance of the man, and when I say that the man had not altered colour in the least and that his pulse was just the same even, quiet pulse that it had been before the operation, I think we may say with truth that there was little shock.

I do not appear before you to-night as an advocate for any particular operation. All that I say, at present, is that there are considerations that may lead us in a particular case to adopt the perineal route, but at present you must not advocate any particular operation, and all that you can do must be directed to benefiting the patient, and trying to reduce the mortality of an operation for the removal of a prostate, in part or entire.

Obstetrical and Gynæcological Customs in the Sudan.

By D. S. DAVIES, M.B., B.Ch.Oxon., Medical Inspector, Sudan Medical Service.

Circumcision.

THE Sudan is, I believe, the only country where both boys and girls are circumcised. Circumcision of boys is a religious ceremony, which explains why, in the many wars in this country, the dead in battle who had been circumcised were never mutilated by the Arabs.

At the age of about 5, the boy is operated on by a sanitary barber (a sort of travelling public vaccinator) or by a professional circumciser, and there is, of course, much ceremonial and rejoicing.

The native technique is interesting and varies even as amongst surgeons of other nations. One operator will pass a stem of wood like a lead pencil through the preputial orifice, pushing back the glans. Then, tying the prepuce firmly on to the stick, he pulls strongly bringing the foreskin away from the glans. A razor completes the operation.

Another will use a small partly-split bamboo—the prepuce being pulled through the split until enough of it projects to be cut off. This primitive Spencer-Wells also holds back the glans.

The wound is now dressed—each surgeon having his favourite dressing which may be dried animal dung, or coffee grounds, or ordinary dirt made extraordinary by the blessings of a holy man, or powdered pomegranate skin or, greatest favourite of all, the dust of old rotting, ant-eaten wood. This last is recommended in the profession here as a good coagulant.

No attempt is made at suture. If bleeding is troublesome, more dirt is applied and the boy commended to Allah. Unfortunate results are almost unheard of.

The fee varies as the status of the parent—it may be a handful of wheat or dates rising through the scale of twopence, fourpence, half a sheep, a shilling, a whole sheep, etc., up to even one or two guineas. Terms are strictly cash and of course, the fee for circumcising a boy is always much bigger than that for an operation on a mere female.

The circumcision of girls, which is really a more or less complete closure of the vulval orifice, seems to have originated with the rise of Islam in the Sudan. It certainly is not a religious ceremony, there being no behests on the point in the Koran. In any case, in Islam, girls are far too unimportant to have any religious rites prescribed for them. It is curious then, that such a custom should have become so universal. None of the people who practice it really know why they do it. One native midwife told me that it was to prevent any friction of the labia in such hot climates as might lead to irritation and adoption of vicious habits.

The men think female circumcision is just slavish following of fashion. One hospital attendant told me it was for the same reason as the wearing of top hats by all Englishmen in the illustrated papers.

But the one reason not confessed is that it means money for the old midwives. That secretive and powerful body that kept doctors out of midwifery for so long and that made Smellie hide his forceps under the bedclothes controls this custom in the Sudan. It has been said that all women after the menopause take to medicine or matchmaking and the fulfilment of their destiny plus the provision of an income is a powerful factor. They have everything to gain by keeping up the custom. The Government is now training midwives who will certainly set up new standards.

The girls are usually circumcised at about 5 years of age, but may occasionally be left to a more mature age and it is no strange thing for them to be circumcised only in time to heal and go straight to the marriage bed.

There are two forms of the operation—as the text-books would say—the incomplete or conservative and the complete or radical. The incomplete is the Sunna, as practised by the Egyptians, and is a poor affair as compared with the Sudanese complete or Pharonic form. In the Sunna, the clitoris is removed by a razor as completely as possible, which usually means that some of the preputial fold is removed. A piece of cloth is therefore left in the wound to prevent closure over the urethra.

In the Pharonic form, as done in the Sudan, the operation is more complete. After being washed in the Nile, the girl is hennaed and

brought to the ceremony at the house of her parents—only women being allowed to assist.

The razor is the only instrument used and with it are removed the clitoris and labiæ majora and minora. The excision of the labia is continued back to within a finger's breadth of the anus. The usual dressing of dung or dirt is applied—no sutures are used and the knees are roped together. The girl is then kept strictly abed for about three weeks. After about three days the wound is dressed by washing with warm water and application of more dirt. The patient defæcates through a hole in the bed, but for every micturition, the mother lays two fingers lengthwise over the wound so as to force the urine to track back and emerge at the anal end of the wound. Thus, a small orifice, often barely admitting a probe, is left at the site of the original vaginal orifice. Healing is of course painful and usually accompanied by some fever but fatalities seem to be very rare. After three weeks, the girl is allowed to walk but with only short steps and it is possibly more than a coincidence that these same very short steps are universal in the native dances as done by the girls.

The wound always closes fairly completely and closure may be so complete as to give rise to dysmenorrhœa at puberty. If the menstrual colic is bad enough, the midwife is again consulted. She usually decides to interfere and inserts a small plug of wood (Fundiba) which swells when wet—a sort of laminaria tent. This is worn constantly, being removed only for micturition or for renewal, and usually succeeds even in cases of hæmatocolpos— probably by ulcerating into the vagina.

The fee for attentions to a girl is left to the goodwill of the parents and varies from a penny upwards.

Marriage.

Marriage and giving in marriage is all important among these Arabs. In most of the tribes, there is no preliminary wooing—one reason being that a man must marry his cousin as a first choice and great is the insult to the girl's family if he fails and heavy the recriminations. So strong is this custom that it is embodied in a proverb "you should fill your own plate before filling others."

Among the Shaiyegis and one or two other tribes, however, the man may fix his choice by seeing the girls as they wash clothes at the riverside or fetch water, and he may arrange with her to ask for her hand. It usually amounts only to a choice of cousins which is then ratified and arranged by the parents.

Most of the girls marry, usually at about 11 or 12 years of age and often before menstruation has begun. If they reach 18 years of age they have already abandoned hope and taken to ladies' hairdressing, matmaking or brewing a local liquor. Any blemish, such as a blind eye, severe trachoma, etc., has to be balanced by a heavy parental purse before the girl can even hope.

The bridegroom buys all the clothes, drink and meats for the inevitable feast and further, has to pay a dowry of a few pounds, sheep, camels or palm trees to the parents of the bride. The higher the station of the bridegroom, the less the payment exacted. One merry villian I saw being tired of celibacy, yet poor, had stolen two goats with which to buy his bride. He got his wife, but it led to complications.

The feasting starts seven days before the marriage, the groom and his friends, male and female, dancing and singing round the village daily and journeying to the river where the groom strikes the face of the water with his sword and plunges his sword into the water (Shades of Freud). During these days, man and maid are hennaed and oiled and perfumed, and the eve of the wedding day, the man goes to the girl's house for the ceremony of cutting the rahat—this being a short skirt of wisps of leather worn only by virgins. The ceremony seems to symbolise the putting away of her virginity.

At the marriage itself, a certificate is given to both bride and groom and in it is stated unequivocally the amount of the dowry and the amount to be paid to the girl if her man divorces her. If children are born, the price of divorce is greater. All is definitely stated beforehand.

Divorce is simple—the man before a witness says "I divorce you," repeats it twice together with any little speech he may care to add and the girl at once retires to her parents' house and arranges to collect her solatium. The richer man divorces his wives for anything which displeases him—a fly in his coffee is cause enough.

The woman cannot divorce her husband, but she can leave him at any time, forfeiting her solatium however by this—hence it is that a husband prefers to drive out his wife by tyranny than by saying the magic words.

Pregnancy.

One of my greatest surprises in medicine was to find that these native women, who are usually believed to be free of all the ailments which affect pregnant European women, suffer almost universally from nausea and vomiting during the first three months of their pregnancy. It is as well-recognised a sign of pregnancy as in England and intractable vomiting is certainly as frequent as amongst Europeans. Many women vomit everything they take so that they are given only lemon and pepper and a little milk, and many either die from the persistent vomiting alone or abort naturally or by induction. Abortion is a favourite treatment.

Perverted appetite is almost universal. Eclampsia comes into the ken of every native midwife, anyone of whom will describe quite accurately the œdema of legs and face, followed by fits alternating with periods of relaxation and ending in death. These fits are of course attributed to magic, afreets and insanity and as soon as the woman is seized the neighbours are sent for to hold her, the holy man comes to write, to objurgate devils and to sprinkle holy dirt. No other treatment is adopted though the value of abortion is well known. The midwives are probably held back by their knowledge that the fits often continue after labour has been brought about.

I have not seen any cases of hydatid mole or prolapse or carcinoma of the cervix, but hydatid mole is known amongst the midwives and is always ascribed to retention of products after an incomplete abortion or death of the fœtus.

Abortions, spontaneous and induced, are multitudinous. Syphilis and malaria are claimed as cause in every case though artificial aid has been called in, in perhaps half of them, especially where the child would have been illegitimate.

For abortion, the favourite instrument is a stick of ushar. The stems and leaves of this plant when broken off exude a milky fluid exceedingly irritant to mucous membranes—for example, it will give a very acute conjunctivitis if splashed into the eye. The stick is therefore used fresh and passed in towards the uterus. Its irritant action alone, however, is not relied upon—the midwives always aim at getting into the uterus and pucturing the membranes. Naturally, working blindly with a stick through a tiny vulval opening must lead to many accidents, especially when the operation is performed by the woman herself. Very many die of peritonitis.

Purges take their place in the armoury of the abortionist—the determined woman will try every conceivable thing until she succeeds—paraffin, soap, holy dirt, herbs without number, all are made to serve until the desired object is attained.

Antepartum hæmorrhage is an almost common cause of death—no treatment is attempted beyond commending the victim to Allah.

Sterility is very common and is the most frequent cause of divorce. It is usually due, I think to gonorrhœal salpingitis. In one of my wards, I had, at one single time, six cases of salpingitis. As soon as the first one left cured, the others clamoured for her empty bed attributing far more virtue to that one bed than to my most assiduous attentions.

Sterility is a great disgrace to the woman and is never attributed to the man because he has usually had children by other wives. It is not surprising therefore to find many women who think they are pregnant and show no signs of pregnancy beyond perhaps amenorrhœa.

I have been consulted by nine women, all young and all of whom said that there was a "boy in the belly" for any time up to three years. On examination, none of them showed the least sign of pregnancy and I have not yet decided whether it was a womanly wile to put off the day of divorce or whether the wish was father to the child.

Labour.

There is no ante-natal care, the native midwives do not bother about presentations. If the mother has any pains the holy man may be called in to put a holy paper on the painful spot, but apart from that no trouble is taken.

The woman works up to the last moment and the only preparation for the coming labour is by the husband, who begins to save up little delicacies like dried meat, sugar, etc., but these are not bestowed before labour. The man pays by results. If the child born is a boy, all is joy. Midwife and wife are loaded with new clothes, presents and foodstuffs, but the arrival of a girl brings much gloom—no delicacies for the invalid, a small fee for the midwife, no presents, no rejoicing—just shameful gloom.

When the woman has her first pains, the midwife is summoned and with an invocation

of Bismillah rushes into a digital examination with unwashed digits. Having satisfied herself as to the position of the fœtus she sends the patient into a corner to wash herself and cheers her meanwhile with the lively prattle employed by gamps the world over. During this interval the floor is freshly sanded and the prospective mother brought to the centre of the room where she kneels with legs open. A rope is hung from the roof, on to which she may hold and pull, other women support her and use all their wiles, and the woman begins delivery kneeling.

There is never any precipitate labour because the vulva is re-closed after each labour and per contra there is no labour without midwifely interference. When the head presents in the perineum, the midwife who is seated on the ground facing the kneeling woman, picks up the skin covering in the vulva and slits it up with a razor towards the symphysis. If all goes well, the child is delivered. The cord is never tied until the placenta comes away, when a piece of string or grass rope is used for tying, the cord is cut and the stump cauterised. No dressings are applied.

If the placenta is not delivered after a decent interval, the midwife never having heard of Crede or Lister, just inserts her hand and removes it. Many women die of hæmorrhage—no one seems to mind; it is no one's fault and Allah is Great.

The usual presentation is occipital. If it is a malpresentation or labour is difficult, it becomes a trial of sheer strength and ingenuity for the midwife without the advantages of forceps. Many women die and many children are still-born.

The day after the labour, the vulva is again closed by passing four or five long powerful thorns deeply through from side to side and leaving them to slough out in time. Fever is an almost constant concomitant of the puerperium, but true puerperal sepsis does not seem to be as common as might be expected. Still, it does carry off a certain number.

The woman is confined to bed for three weeks and then to the house for another 20 days. After she leaves her bed, she is massaged daily with sandalwood oil and is made to squat over a smoldering heap of incense wood, wearing a gown so as to shut in the smoke and keep it concentrated around the pelvic regions. This has been recommended strongly to me as having much virtue.

The placenta is disposed of with ceremony. If the child was a boy, the placenta is carried in a basin on the head of a woman friend and borne by a singing, handclapping procession to the river where it is thrown into the waters of old Father Nile.

If, however, the child was a girl the placenta is buried under the threshold where it takes up a station as Guardian Angel to keep the girl indoors that she may be domestic and dutiful and not seek pleasure in the city.

Ability to breast-feed the child is no more universal than it is among civilised peoples—all the women try but many fail and wet nursing or artificial feeding are often resorted to.

The new born child comes in for his share of loving care—the holy man bestows holy writings upon him, his head is smeared with soot and sandalwood oil. In some tribes, a cross is drawn on his forehead with meconium, and a similar cross drawn on the wall above the bed. This is thought by some to be a survival from the Christian era in the history of these peoples. In all tribes the child's eyes are anointed with kohl, apparently simply to beautify the infant, but it would be interesting to know if this antimony preparation could have any effect in preventing ophthalmia neonatorum.

The difficulties of midwifery are many and great. The midwives trade union is powerful, ancient, and covetous. The men are exceedingly watchful of their women folk and shield them from all outside eyes. The women themselves are frightened of strangers and it is delightful to see the haste with which they will cover their mouths from the sight of a stranger and leave breasts and legs bare.

The men, too, are lords of creation and rarely think a woman worthy of medical attention.

A very short time in the country convinces one that there exists no such thing as woman free of the trammels of civilisation and fashion, nor has our own civilisation any gynæcological disadvantages.

These native women suffer from all the troubles that affect the white woman—dysmenorrhœa, menorrhagea, sterility, pernicious vomiting, eclampsia, abortion, antepartum hæmorrhage, difficult labour, retained placenta, failure to feed the child, fibroids—all exist in as great a degree as in the European woman, and with none of the helps in time of trouble that the latter enjoys.

Our women do not deserve the criticisms they receive as child bearers.

Dental Notes.

Beauty.

Being a Lecture delivered at the Hospital, Nursing and Midwifery Exhibition Conference, Westminster, 1925, by C. DOSWELL WALLIS, L.D.S., R.C.S., M.I.H.

BEAUTY has been described as being only "skin deep," but the springs of real beauty are actually deeply seated and the foundations upon which it rests are largely laid in the earliest childhood.

It may appear, at first sight, to be rather incongruous to speak of beauty culture in relation to babyhood, and yet, if the seeds of beauty are not planted, tended and trained, from the earliest days, how can the flower come to perfection? If the foundations are faulty, however attractive a superstructure may be added in later years, failure to attain the best possible results is certain. Trifling errors during early childhood, if not corrected, will inevitably mar and detract from that perfection, which we all desire to see in later years. Such disabilities may not become apparent until some period of extra strain, but if the foundations are not secure, disaster will be the result.

There is a reason for everything, if one can take the trouble to find it, and it should prove of interest to try to discover some of the springs of beauty.

Beauty, in the generally accepted meaning of the term, resolves itself (fundamentally) into two main considerations, namely—

Perfection of Colouring, and

Perfection and Symmetry of Form and Contour.

In regard to Form, this may be further subdivided into—

General Bodily Contours (height, balance of figure, and so forth), and

Facial Contours.

This latter aspect of the question is of greater interest and worthy of special attention, as the face is exposed to view; whereas deficiencies elsewhere can, to a large extent, be hidden, disguised or compensated for.

It is not generally realised to how great an extent the development of facial beauty is dependent upon the teeth. Not only the contours, but also the colouring of the face, as well as the texture of the skin, are largely dependent upon a well-developed and well-cared-for mouth, and this is within the reach of all.

May I ask you to try to realise that all the foregoing considerations are quite apart from the undoubted fact that one of the greatest adornments provided by nature is a good set of teeth? Well-cared-for, healthy teeth can redeem the plainest, and defective, neglected ones can as surely detract from and spoil an otherwise attractive apearance. Further, when teeth are missing, this deficiency will be reflected in the appearance; e.g., when the upper canine teeth are removed the face sinks in at each side of the nose, and the crease or fold extending from the alae of the nose to the corner of the mouth becomes emphasised to such an extent as to be ugly. If many of the side teeth are missing the cheeks will fall in, and so on.

In the following, however, it is my purpose to describe only normal conditions, and to try to trace the development of Beauty.

A fine, soft skin of good texture and colouring depends upon general health, which depends upon proper nutrition; which, itself, depends upon the correct use of an efficient set of teeth, and a clean mouth. Good bodily health can only be attained as the outcome of sufficient exercise, cleanlines and the perfect digestion of suitable food. A moment's reflection will remind us that without good, sound teeth, efficient mastication is not possible, and without this primary process indigestion will surely result. Indeed, the most common and fruitful source of indigestion, and its associated disabilities, has been shown to be a diseased or dirty mouth, or an actual deficiency in the number of the teeth, making proper mastication impossible.

Further, a neglected mouth and diseased teeth frequently lead to the formation of a focus of septic absorption, and besides numerous ailments and diseases that follow in its train, such conditions will be reflected in the appearance of the skin and complexion.

It should now prove of interest to try and understand something of the development of facial contours.

The framework of the face is composed of bones, whose chief functions are to hold the teeth, to give attachment to the muscles that move the jaws, and to take up the stresses and strains produced during mastication. Now, it is upon this boney framework that all the contours of the face are built. The outlines of these bones are laid down before birth, and their development may be guided, at least to some extent, during babyhood and childhood. The boney framework of the face consists of the eye sockets, the nasal bones, and the jaws, which latter, however, form by far the greater bulk, and are chiefly involved in giving expression and beauty of line and contour to the face.

It is well to bear in mind that the jaws are designed solely to house the teeth, and together with the muscles of mastication and associated parts, which are accessory to them, go to make up a "mill" for the trituration of one's food.

It has been customary to think of dentistry in terms of "a tooth, and tooth-ache," or, as a slight advance on this idea, as a matter of the "teeth and gums, and pyorrhœa." The correct angle, however, from which to consider modern dentistry is to think of the jaws and all the teeth as a "unit" which, with the surrounding parts, form a "mill" for the efficient grinding and mastication of food. The bones of the face, and the teeth, all have their beginnings laid and general plan sketched out long before birth, and this can be influenced to only a very slight extent. This is heredity. Their subsequent growth and development can, however, be guided, by careful attention to detail. This is environment.

Naturally, the earlier that this attention and guidance are forthcoming the greater are the chances of a successful issue.

A perfect set of teeth should be perfectly balanced, being arranged symetrically above and below and right and left (with only a few minor differences).

The teeth of man are 52 in number in all—20 belonging to the deciduous, or baby set, and 32 to the permanent, or second set. Each tooth is described as consisting of three parts —the crown, that portion exposed in the mouth, the root(s), which anchor the tooth to the jaw, and the neck, the line of junction of these two portions which corresponds to the gum-edge.

At birth, some 50 teeth are already commencing to form in spaces in the jaws, which erupt, from time to time ,in groups, as the appropriate age is reached. The temporary teeth are cut (at intervals) between the ages of six and twenty-five months, and the permanent ones between the ages of six years and twenty-five years (approximately). For some time after all the teeth are in place in the mouth, the roots of the most recent arrivals continue to grow to full completion. So that the process of the growth and development of the human teeth is in reality quite a slow and very complex operation which continues thoughout the first thirty years of life.

Between seven and eight months before birth the first rudimentary beginnings of the jaws and teeth can be traced, and as the teeth develop and get larger the bones of the face also develop and grow bigger to accommodate them. By tracing the changes that take place due to the presence and development of the teeth it is possible to understand how they influence the contours and appearance of the face throughout life.

At birth the rudimentary, developing teeth are still enclosed in "crypts," or spaces in the bone of the jaws, and have no roots worth mentioning, and so are comparatively short. Further, the roof of the mouth almost touches the floor of the orbit, and it is not until nasal breathing has been established for some considerable time that the cavity of the nose develops to any great size. These factors go to explain the shape and general contour of a baby's face, which is rounded and squat with prominent cheeks. As the roots of these teeth develop, increasing their length, and as the beginnings of the second set of teeth grow larger, more room is needed to accommodate them, and the face lengthens.

Later, as the teeth of the second set grow to really large dimensions, and whilst all or most of the first (baby) set are still retained, a child's face becomes again fuller and more rounded, as these teeth begin to require a very appreciable amount of room. Later on still, when all the second (permanent) set of teeth are in place, and after all the first ones are shed, the face again lengthens, until, finally, the leaner clean-cut appearance of the young adult results.

Passing from adolescence to full growth, the face fills out somewhat as the bones consolidate, and muscle and fat develop.

In later life much of this fat may be eliminated, and a more "rugged" appearance results, until, finally, when all the teeth are lost in old age, the bones, being no longer re-

quired for their support, atrophy, and, the shape of the jaws being modified in accordance with these changes, the familiar "nut-cracker" contour results.

From these considerations we see to what a very large and surprising extent the actual contours of the face, as a whole, depend upon the teeth, and the various changes that occur as they develop, from the very earliest babyhood right up to old age.

Coincidentally with these changes in the teeth themselves, and their attachments, the bones of the face and jaws are assuming "arched" shapes, and a "groined" arrangement results, to take up the stresses and strains of mastication to the best advantage. The bones of the face, also (with the exception of the mandible), become hollowed out in the interests of lightness, and the antrum and other sinuses are formed.

The general conformation of the jaws is quite simple, and is much as follows—

The teeth are arranged in a horse-shoe shape around the margins of the alveolar processes of the jaws, and as they erupt and are extruded from their hiding places in the bones, this boney process is built up around them. If and when a tooth is lost, for any reason, this alveolar bone is absorbed and disappears, so altering the contours of the face.

The curved alignment of the teeth is determined by the mutual pressure of the tongue, lips and cheeks, and by the pressure of the teeth one upon another. The whole arch is "locked" by the canines, which are the last teeth to come into place, and by reason of their shape and position act as "key-stones."

The arching of the palate in a vertical plane is arrived at in quite a different way, being largely dependent upon the air pressure in the nasal cavities. The weight of the lower jaw is supported, when the mouth is closed, not so much by direct muscular action, as by the pressure of the tongue upon the palate, producing an area of negative pressure, or "suction."

This action of the tongue produces a downwards pull, and the rush of air to and fro in the nasal passages, exerts a downwards pressure, which, combined, force down the roof of the mouth, mould the beautifully rounded arch of the palate, and spread the sides of the upper jaw, thus helping to perfect the arch of the upper teeth, which, through their articulation with the lower ones assist the tongue in moulding the sweep of the lower denture.

It is essential to bear in mind, when considering the fore-going details, that during childhood (the period which is chiefly under review in this connection) the bones are constantly changing their form as they develop and are in a plastic condition, so that, relatively small forces only are requisite to alter their shapes and contours, more especially when such forces are exerted over a long period of time.

All these factors that tend so greatly to influence the building-up of the facial contours make one realise to what a very large extent the teeth are instrumental in determining matters in relation to beauty.

In conclusion I would remind you that "nature" is a great architect and works to rules from which it is fatal to attempt to deviate; that form follows function; that happiness follows the consciousness of beauty; that beauty follows health; and that health follows care, and close attention to the rules of cleanliness, diet and exercise.

New Regulations of the Conjoint Board.

HITHERTO the Conjoint Board has demanded that an interval of six months should elapse between the completion of the 1st Professional Examination and appearance at the 2nd Professional Examination. This regulation sometimes involved hardship in individual cases, and the Board has consequently reduced the interval to four months. This means that in future students may take the second professional examination at the examination subsequent to completing the first professional examination, provided that they have complied with the regulations in all other respects.

Guy's Hospital Dental School.

Student Demonstrators of Dental Histology, May—July, 1925.—Cutler, R.; Warner, F. S.

Third Year's Prize in Dental Subjects, 1925—Prize awarded to Mr. R. Cutler.

Change of Address.

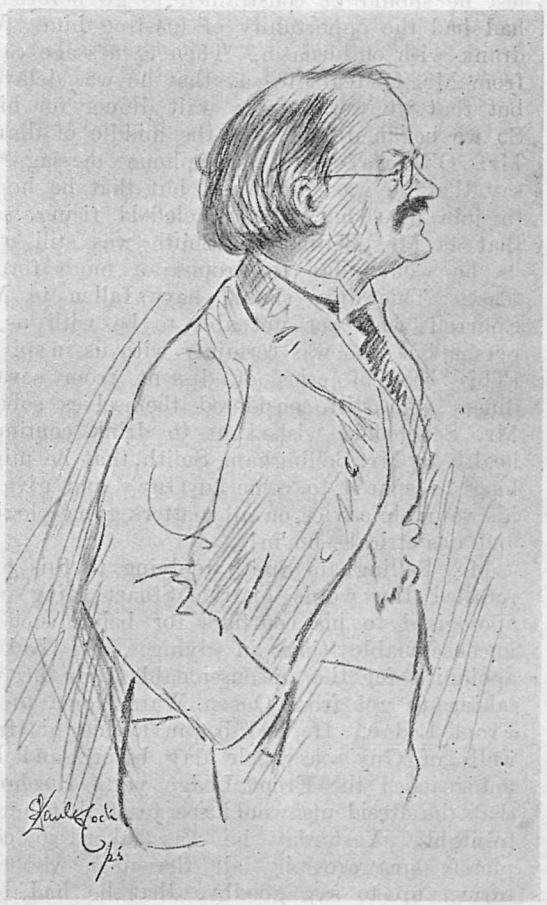
R. M. Lloyd-Still, Surg.-Lieut., R.N., H.M.S. *Tarantula*, c/o G.P.O., London, E.C.

The First Fison Memorial.

SIR JOSEPH J. THOMPSON explained his new theory of light in his lecture in the Physiological Theatre on Thursday, May 7th. After showing how the Newtonian or corpuscular theory came to be abandoned in favour of the undulatory theory of Thomas Young, and how that, in turn, had doubt thrown on it by the discovery of the Rontgen rays, the lecturer explained his reasons for regarding light not as containing one kind of constituent, but two. Light, he considered, was both undulatory and corpuscular.

Lord Balfour, who presided, in thanking the lecturer, said that the history of science had an additional interest in showing how a great speculation by a man of genius might be modified or even have the appearance of being completely upset, but that, if it were sincerely founded on observed facts, it often reappeared, occupying an assured place in science. Thus, Newton, Young and Sir Joseph Thompson, divided from each other by roughly a century, found that the work of one had not been dissipated or diminished by the work of the other and that completer knowledge showed that if neither Newton nor Young were wholly right, both made a great contribution to truth.

EARL BALFOUR, K.G., O.M., F.R.S.



SIR J. J. THOMPSON, O.M., F.R.S.

Biff Passes.

TUESDAY, the 28th April last, was Mr. Bellingham Smith's sixtieth birthday and to celebrate it the Residents invited him to dine with them in College. This he, not having dined at the Residents' table for thirty years, consented to do.

There were gathered to meet him a very distinguished, if rather bibulous, company of externs, of residents, and of registrars. The guest of the evening arrived a little late and confided in Mr. Scholefield (who presided) that he would have to leave early. Mr. Scholefield accordingly at once rose and proposed that we should drink Mr. Bellingham Smith's health lest he should be constrained to go before we had had the opportunity of toasting him. We drank with enthusiasm. Then a message came from Mr. O'Meara to say that he was delayed, but that we were not to wait dinner for him. So we began dinner. In the middle of dinner Mr. O'Meara sent a telephone message to say that he was still busy, but that he hoped to join us soon. Mr. Scholefield rising, said that as Mr. Bellingham Smith was still with us he would like to propose a more formal toast. This duty should have fallen to Mr. Spurrell, who was not able to be with us in person but who was certainly with us in spirits. (This brought cries of dissent from several diners who still considered themselves sober.) Mr. Scholefield wished us to drink continued health to Mr. Bellingham Smith, that he might long be spared to come to Guy's and give us his valuable advice on all matters gynæcological and obstetrical—hm'm!

Mr. Bellingham Smith replying to this toast recalled the words of the Stuart King who apologised to his courtiers for being such an unconscionable time in dying. He had to apologise for the unconscionable time he was taking to get from Queen Ward down to the Front Lodge. He had begun taking his farewells of Guy's a whole day before and had not reached the Front Lodge yet. He hoped that the Residents would see to it that he did to-night. Yesterday he was taken so completely unawares by all the men who had turned up to say goodbye that he had been quite unable to say thank you for the gift that the Residents had given him. This was the fault of the externs who proffered a noggin of whiskey to him after his visit to Queen instead of fortifying him with it before he went to the wards. So he was doubly glad to dine at the Residents' table as this gave him a second opportunity of thanking them for the cigar casket which he had received.

When the applause had subsided, Mr. Doherty, who obviously had something on his mind, rose to deliver himself of it. He announced to begin with that he was going to deliver himself in three stages. First, he wished to thank Mr. Bellingham Smith for having presented to the Residents the excellent champagne in which we now had pleasure in drinking his health. Secondly, secondly, oh yes secondly, he wanted to speak of Mr. Bellingham Smith's speed at operating. In Mr. Doherty's opinion, and in the opinion of all the men on Mr. Doherty's side of the table, Biff was a very speedy operator. And the third thing he wanted to say was—hm'm—was—hm'm—was how fast Mr. Bellingham Smith could operate. So he thought this was a good opportunity of drinking Mr. Bellingham Smith's health. So we drank again, and as we drank Mr. O'Meara arrived and as Mr. O'Meara ate his dinner the cult of speaking spread.

Mr. Blake, who is Biff's last R.O., said it was quite true that his chief was a fast operator in fact he, Mr. Blake, found it difficult to keep pace with him. Mr. Blake wished Mr. Bellingham Smith the best of health—so did we all.

Mr. Parsons, the President Elect of the Residents, hoped that this dinner would not be brought to an untimely conclusion by people rushing off to catch the last train home. He had plenty of empty beds in the Accident Ward. He was delighted to be able to propose Mr. Bellingham Smith's health.

Mr. Boland, Vice-President Elect, congratulated Biff on his youthful appearance, saying he felt sure that Mr. Bellingham Smith's name ought to have appeared among the list of candidates for President, so well did he fit into and ornament the Residents' table. He, too, was delighted to drink to the continuance of Mr. Bellingham Smith's health and youth.

Then the externs created a diversion. Mr. Jackson spoke and with a fine touch of originality proposed the health of Biff's birthday, which was drunk enthusiastically, almost riot-

ously, some of the diners being with difficulty restrained from singing "For its a jolly good birthday." Mr. Grove was not to be outdone in originality by his fellow extern. He had read of and doubtless admired the feat of Mr. Tom Mix who rode a pony in among the tables at dinner at the Savoy, and now he proceeded to emulate this feat on his bicycle, with extern's bag and all complete.

Mr. O'Meara had still not finished dinner so Mr. Bonar took up the running and told of his unfortunate descent. On his own confession he is a Yorkshire Scot, and if we can believe him, all Scotsmen born in Yorkshire have always in front of them two ideals (I quote Mr. Bonar's own words), the Scot would "Eat all, drink all, and pay nowt," the Yorkshireman, "Hear all, see all, and say nowt." Now the first of these is easy to do when one is entertained by the Residents, the second must be very difficult even for a Yorkshireman, but Mr. Bonar may rest content that he did it for, when he had said all, he really had said nowt, except that it was an auspishus occasion and that he thought it was time we drank Mr. Bellingham Smith's health.

All that I can remember of Mr. O'Meara's speech is that Mr. O'Meara said it was going to be sentimental, and that it was quite true that Biff was a fast operator. Sometimes by the time Mr. O'Meara (when he was Biff's R.O.) had washed up for the first operation, Biff was ready to start the second.

Other speakers went on speaking and toasting Biff after this, but their speeches were not ones that should go down to eternity, except for that of Mr. Forman, who said that although he had never been Mr. Bellingham Smith's R.O. yet the Junior Staff beat the Nomads.

Then a porter brought a card for Mr. Bellingham Smith and he rose as if to go out on the District, but really we wended our way with triumphal music to the Front Lodge which Mr. Bellingham Smith left for this his last official time to the accompaniment of the heartiest and the most wholehearted cheering that the Hospital has heard for many a year.

Correspondence.

DEAR SIR,—In the interesting article of R. C. Brock on "Medical Men in Literature and present-day Authors," there is one name left out of Guy's men, whose works will live for ever, when the everyday anthropologist is utterly forgotten and whom Guy's will, in future years, be proud to acknowledge as "one of her sons," one who loved Guy's so well.

Twelve of his great works, I believe, are in the Wills Library at Guy's; if not, these should be.

I refer to Albert Churchward who entered Guy's in 1870, now in great financial straits and nearly blind.—Yours truly,

H. PERN.

171, Selhurst Road, S.E.25.
12th May, 1925.

The 19th Voyage d'Etudes Medicales.

SEPTEMBER, 1925.

THE 19th Voyage d'Etudes Médicales to the health resorts of France (organised solely for the medical profession) will take place during the first part of September, under the scientific direction of Professors Carnot and Rathery and will be devoted to the resorts of the North and East.

The party will assemble at Berck-sur-Mer and will first visit Paris-Plage, Lille and Saint-Amand; thence to Belgium in order to visit Brussels, Spa, Luxembourg and Mondorf. Returning to France via Niederbronn and Morsbronn, the 19th V.E.M. will visit Strasbourg, proceeding from there by auto-car to Schirmeck, le Hohwald, Sainte-Odile, Chatenois and Ribeauvillé, then Colmar, Soulzmatt, Soulzbach, Munster, les Trois Epis, le Linge, le Col de la Schlucht and Gerardmer. Crossing the Vosges again it will then follow the road of the Cretes and visit Bussang, Luxeuil, Plombières, Bains-les-Bains, Bourbonne, Martigny, Contrexéville and Vittel, disbanding at Nancy.

First class accommodation is arranged throughout the journey and at the hotels. For further particulars, apply to:—Madame Juppé-Blaise, Delegate of the French Spas, Office Français du Tourisme, 56, Haymarket, S.W.1.

Sport.

Rugby Football.

Junior Hospitals Cup.

Resumé of Junior Cup Ties for 1924—25.

THE "A" team enjoyed the usual type of season up to the beginning of the Cup Ties in February. Before Christmas the team did very well indeed, but, as usual, after Christmas the side started to fall to pieces owing to ill-health, examinations, injury, and so on. By the time that we were due to play Bart.'s "A" it was two months since we had had our full three-quarter line playing together, and so it was with some doubt that we faced Bart.'s 'A' at Honor Oak Park under good conditions. Popplewell was then eligible for our side, but he had unfortunately damaged his thigh on the previous Saturday and was unable to play.

When the game began, Bart.'s pressed strongly, but before a quarter of an hour had elapsed Guy's obtained a lead which they never looked like losing. The team played together in most convincing style. The forwards dominated every scrum, and Kurtz hooked cleanly and quickly. Weston and Meacock combined well at half and the three-quarter line was always on the move. Clarke ran rings round the opposing backs and Coltart always got Leslie away on his wing.

Leslie opened the scoring with an excellent try after some strong running, and soon after added another. Five minutes later Meacock scored the try of the afternoon by beating the opposing half and full back. Bart.'s began to wake up when they were fifteen points down and attacked strongly, but their attacks had no sting in them. Eventually their right wing got away and cross-kicked; our defence was out of position and their left wing scored a try which was not converted. No further score came when ends were changed.

In the second half Guy's played as if they were enjoying it. Clarke went over three times, Leslie once more, and Baird. Bart.'s were unlucky. Everything they tried went wrong, and their forwards only contained three workers. Result—36 points to 3.

This was highly gratifying. Boyle was untroubled at back and kicked a fine length. The back division could not have played better. Of the forwards Visser, Baird, Kurtz and Russell were invaluable.

The Second Round v. Middlesex "A."

THIS was played at Honor Oak under bad conditions. Owing to a misunderstanding we had not our full team. Ensor came in at full back and we are indebted to Coltart for turning out on the wing with his leg still in a strained condition.

Owing to the foul weather it was decided to play short halves of twenty-five minutes. At the end of twenty-five minutes' play Guy's were leading 36—0, and Middlesex scratched in our favour. No comments are necessary, but the skill of the backs in handling and running deserves mention.

Semi-Final v. King's.

THIS was played at Denmark Hill on Monday, March 23rd. Guy's started with a slight advantage in wind and hill. The team was not the same as in our previous cup ties. Visser and Popplewell were no longer eligible, Clarke had also gone, and Leslie was crocked in the first minute. Visser was a great loss to us in the scrum, as can be understood by those who saw the 1st XV. play King's, and Clarke was badly missed outside. Tupling came in again after six weeks absence due to shoulder trouble. Timpson deputised for Visser.

King's pressed strongly from the kick-off and forced us into our twenty-five, but after ten minutes uncertainty Guy's settled down and took the game to the other end of the field. As previously stated, Leslie's leg went almost immediately, and he was almost a passenger afterwards. Had he possessed his usual speed he must have scored at least three times in the first half when he was clear. Ettles came out of the scrum, where Kurtz was doing his usual good work in hooking smartly and cleanly.

Guy's opened the scoring with an excellent try by Williams. The forwards rushed the ball up at their feet and quick heeling and passing sent Williams away to score on the right. Guy's kept the pressure up and the score stood at 12—3 at half-time. King's try was a very lucky affair. Williams and Boyle both tried to catch the ball at once, a collision resulting and the ball bounced clear. Five King's forwards dribbled away without any opposition. By the greatest luck the ball did

not go out of play though they did their best to kick it out. The try was not converted.

After half time against the slope and the wind Guy's played well. By getting an extra man over outside, Tupling, Ettles, Coltart and Meacock all scored, the final being 36—3.

Final v. St. Thomas's "A."

PLAYED March 30th, at Denmark Hill, in fine weather. The team played as against King's with the exception of McClean who came in for Leslie.

Guy's started well and after pressing strongly for ten minutes, Coltart broke through and scored an unconverted try. Soon after Tupling went over after a very determined run in the

Back Row (left to right).—J. G. VAN SCHALKWIJK. S. D. MCLEAN, D. M. TIMPSON, M. BAIRD, J. RADFORD, N. L. ECKHOFF, H. W. RUSSELL, C. E. WALTERS.

Middle Row.—N. B. COLTART, V. G. BOYLE, H. K. WILLIAMS, D. ETTLES, L. P. TUPLING, C. KURTZ.

In Front.—J. G. WESTON and S. P. MEACOCK.

left corner and followed this with another five minutes later. Guy's now led 11—0. How they failed to score in the rest of the first half was almost incredible. Three times Williams was within a yard or two of the line without anyone to stop him, but the passes went astray and three "sitters" were missed. Guy's faced the wind in the second half. This was a rather scrambling affair. Guy's hooked well, but Weston was off his game and was not getting the ball away cleanly. Soon Thomas went over twice in quick succession, the score now standing at 11—8. Both sides now strove very hard, both making bad mistakes. Russell nearly went over, but was just short, and did not notice three unmarked men outside him. However, the pressure was kept up, and Ettles sent Tupling away to score an unconverted try, 14—8. Guy's now began to take things more easily, and bad marking in the line-out enabled the Thomas's forwards to break away and score a try which was converted, 14—13. The game finished at this point leaving us winners by one point.

Thomas's pack played a good bustling game, and Guy's were not nearly so sure of themselves behind the scrum, Coltart having a lot of the defensive work to do by himself. Boyle played very well at back, playing his usual steady game which has made us place such confidence in him all the season. Coltart did an immense amount of work and Tupling and Williams ran with determination. Meacock played well and scored an excellent try. Kurtz, Walters, Russell, and Baird played very hard in the scrum, particularly the last-named. Radford was always on the ball.

The team were very glad to be able to bring the cup back to the Hospital after losing it last year.

Cricket.

Results and Averages for 1924.

RESULT OF 1st XI MATCHES.

Versus	Score.	Opponent	
Streatham	71	89	Lost
Honor Oak	110	172 for 8	Lost
Hampstead ...	37	191	Lost
Westminster Bank ...	150 for 3	*220 for 2	Drawn
Chelmsford ...	197	*223 for 7	Lost
Crofton Park	206	49 & 70	Won
Old Charlton ...	*176 for 7	83	Won
Past v. Present ...	*222 for 7	85	Won
Bromley	85	142	Lost
Wellingborough Masters	156	*254 for 8	Lost
C.U.A.C.O.	151	87	Won
Hamptead	215	58	Won
Catford Wanderers ...	*277 for 4	66	Won
Honor Oak	185	169	Won
Old Charlton ...	229 for 4	did not bat.	——
Private Banks ...	199	38	Won
Cane Hill	206	52 for 2	Drawn
Old Whitgiftians ...	222	181	Won
Bexley Asylum ...	271 for 8	211	Won

1st XI CUP MATCHES.

St. Mary's	*297 for 7	59	Won
U.C.H.	317	64 & 81	Won
St. Georges ..	149	111	Won
St. Thomas (final) ...	174 & 78	147 & 103	Won

Matches Played—23. Won 14 Lost 6 Drawn 3.

* innings declared.

BATTING.

Name.	No. of Innings.	Times not out.	Highest Score.	Total Runs.	Average
A. H. Curtis	13	4	52*	279	31.
C. Kendle	10	2	78*	243	30·37
E. J. Pye-Smi h	13	0	72	364	28
J. Durr	18	2	154*	445	27.81
A. G. Ensor	22	2	103	550	27·5
L. Catchpole	21	5	56	438	27·38
G. D. Shaw	13	0	87	331	25·46
J. G. Van Schalkwijk	21	4	70*	417	24·5
L. S. Williams	26	2	68	459	19·1
G. Fellowes-Smith	21	2	40*	219	11·53
S. R. Trick	13	5	19*	83	10·37
The following also batted,					
I. Bakhsh	6	2	48*	90	22·5
V. Preen	3	0	20	37	12·3
D. Calder	6	2	12*	41	10·25
A. C. Arkles	7	0	11	70	10·0
P. Droomer	8	0	29	67	8·37

* Not out.

BOWLING.

Name.	Overs.	Maidens.	Wickets.	Runs.	Average
J. G. Van Schalkwijk	333	76	90	946	10·5
J. Durr	319	70	70	816	11·6
L. S. Williams	66	8	21	272	13.0
I. Bakhsh	96	14	20	272	13.6
G. Fellowes Smith	90	18	19	278	14.6
Also bowled—					
G. D. Shaw	28	9	6	59	9.83
A. G Ensor	25	7	3	49	16·3
D. Calder	36	3	5	126	25·2

FOR 1925 we have every prospect of having a very successful season. There are a large number of men playing cricket and considerable keenness has been shown in attendance at the nets. Of last year's XI., who won the Cup, nine men are left. Several new men have come to Guy's and give promise of being very useful to us.

The 1st XI. have lost G. D. Shaw, who did so much for Guy's cricket, and who had the satisfaction of being one of the main reasons for our victory over St. Thomas's last year in the Final, this being the only time Guy's won the Cup while he was at the Hospital.

We still have J. G. Van Schalkwijk and J. Durr to bowl for us, but we hope to find a bowler to give them some support. Reference to last year's averages will show how dependent we were on this pair.

The old Middlesex fast bowler, E. Mignon, was engaged to coach us at the nets for three weeks. After ten days he became ill and was subsequently admitted as a patient to the hospital. We very much regret to report that the illness proved fatal, death being due to pneumonia complicated by malaria. For the few days he was with us, Mignon took the greatest interest in everyone at the nets, and all who knew him will be distressed to hear of his untimely end.

Below we give the results of our first matches. The weather has been kind to us this year, and the season has begun successfully. We meet the Royal Dental Hospital in the first round of both Senior and Junior Cups this year.

The club is very grateful to C. H. Fagge, Esq., and Prof. Adrian Stokes, who have accepted the office of Vice-President. The officials for 1925 are—

Captain—L. S. Williams.
Vice-Captain—J. G. Van Schalkwijk.
Hon. Secretary—E. J. Pye-Smith.
Assist. Hon. Secretary—W. H. Dowell.
Committee—A. G. Ensor, G. Fellowes-Smith, L. Catchpole, W. D. G. Jones, V. R. Preen.

1st XI. v. Bromley.

Played at Honor Oak Park, and resulted in a win for Bromley by 7 runs.

Bromley—Total 65.

Bowling Analysis.

	o.	m.	r.	w.
W. H. J. North	10	3	10	3
J. G. Van Schalkwijk	11	2	25	3
G. T. Clarke	6	4	10	3
A. H. Curtis	6	3	14	3

Guy's.

A. G. Ensor, b Stone	1
S. R. Trick, c ——. b Stone	2
T. R. Hill, b Moore	1
G. Fellowes-Smith, b Moore	9
A. H. Curtis, b Moore	17
G. T. Clarke, b Moore	12
V. R. Preen, b Moore	0
J. G. Van Schalkwijk, not out	3
W. H. J. North, run out	0
W. S. S. Jones, b Moore	0
E. Britstone, b Stone	0
Extras	13
Total	58

"A" XI. v. Architectural Association.

Played at Elstree, and resulted in a win for Guy's by 4 wickets.

Architectural Association—Total 42.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	7	1	10	5
W. H. J. North	7	5	6	2
G. Fellowes-Smith	3	0	13	1
A. G. Ensor	3	0	7	2

J. G. Van Schalkwijk performed the "hat trick."

Guy's "A."

E. J. Pye-Smith, l.b.w. b Parr	9
A. J. Hockin, c ——. b Parr	8
A. G. Ensor, b Carver	1
L. S. Williams, c ——. b Carver	2
J. G. Van Schalkwijk, l.b.w. b Carver	2
A. H. Curtis, b Parr	0
G. Fellowes-Smith, b Hume	31

G. T. Clarke, c & b Hume...	20
W. H. J. North, c Lavers b Hume	0
W. Ruzzak, not out	0
S. D. McClean, c——. b Hume...	3
Extras	6
Total	82

Guy's v. Streatham.

Played at Thornton Heath, and resulted in a win for Guy's by 68 runs.

Guy's.

E. J. Pye-Smith, l.b.w. b Godfrey	36
A. J. Hockin, l.b.w b Duke	12
A. G. Ensor, b Duke	0
L. S. Williams, b Turney	30
J. G. Van Schalkwijk, b Duke	16
A. H. Curtis, b Duke	2
G. T. Clarke, c Wykes b Duke	21
W. H. Dowell, b Duke	0
W. H. J. North, l.b.w. b Duke	3
W. D. G. Jones, not out	5
S. R. Trick, b Duke	2
Extras	10
Total	137

Streatham.—Total 69.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	14	1	32	5
W. H. J. North ...	11	2	21	4
G. T. Clarke ...	3	1	6	1

1st XI. v. Honor Oak.

FOR the first time for over five years we defeated Honor Oak on our Ground, winning five minutes before time by 40 runs.

Winning the toss, Guy's opened with Pye-Smith and Williams, who soon got the upper hand of the bowling, and had put on 108 in 55 minutes before Pye-Smith left. Williams was soon out for a very bright 58. Four wickets fell cheaply, but Ensor and Curtis made useful scores, and the innings closed for 183. Lockton, the old Surrey fast bowler, took 6 wickets for 42 runs.

Left with two hours to get the runs, Honor Oak made a disastrous start, Van Schalkwijk making the ball bump to get two wickets in the first over. Fellowes-Smith made a very fine catch to dismiss Thorpe. Read and Ducat, the old Surrey man, however, stayed together to put on 109 runs. Read should have been twice caught before reaching 10. Once he was out Van Schalkwijk and Houghton bowled in irresistible form, and with two men being run out, the innings closed for 143. Ducat played a very fine innings for his 90. It will be seen that of the 141 runs off the bat, 130 were made by two men.

Guy's.

E. J. Pye-Smith, c Mullay b Gibson	42
L. S. Williams, b Lockton	58
L. Catchpole, l.b.w. b Lockton	4
A. G. Ensor, b Edwards	24
J. G. Van Schalkwijk, c & b Lockton	0
A. H. Curtis, b Lockton	21
G. Fellowes-Smith, c Gibson b Lockton ...	10
G. T. Clarke, b Edwards	2
L. W. Houghton, c Lockton b Edwards ...	4
S. R. Trick, not out	3
W. H. G. North, b Lockton	0
Extra	15
Total	183

Honor Oak.

P. J. Kelly, c Williams b Van Schalkwijk ...	0
A. R. Thorpe, c Fellowes-Smith b Van Schalkwijk	0
F. Read, l.b.w. b Houghton	40
A. Ducat, c Trick b Houghton	90
G. Sudbury, b Houghton	2
S. Hester, b Houghton	4
J. H. Lockton, run out	0
A. Swain, b Van Schalkwijk	1
E. Mullay, not out	1
W. T. Edwards, run out	3
C. Gibson, b Van Schalkwijk	0
Leg Byes	2
Total	143

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	17·2	4	51	4
W. H. G. North ...	10	1	39	0
L. W. Houghton ...	11	2	34	4
G. Fellowes-Smith ...	4	1	16	0

2nd XI. Results.

v. Bromley, at Bromley—
Bromley, 69 (A. M. Calder, 5 for 35).
Guy's, 60.

v. Cyphers, at Honor Oak Park—
Cyphers, 147 (W. H. Myburg, 5 for 37).
Guy's, 93 (E. Britstone, 27).

v. Private Banks, at Honor Oak Park—
Guy's, 149 (V. R. Preen, 57; D. M. Calder, 29).
Private Banks, 129 (D. M. Calder, 5 for 47).

v. Honor Oak, at Honor Oak.
Honor Oak, 269 for 5, declared.
Guy's, 163 (V. R. Preen, 54; W. A. Corry, 27).

Fencing.

ON Monday, May 4th, in the Pavy Gymnasium the Fencing Team met Oxford in Foil and Epée. The bouts were spirited, and on the whole the standard of play was good. Neither our visitors nor ourselves were at full strength, Silvester and Johnson being substituted for L. G. Housden and C. P. Blacker.

Result.—Foil. Teams of Five:—

OXFORD.

	Won.	Lost.
Simey	5	0
Maw	3	2
Gordon	2	3
Toyne	3	2
Brown	1	4
	14	11

GUY'S.

	Won.	Lost.
Foy	4	1
Silvester	3	2
Scorer	2	3
Human	0	5
Johnson	2	3
	11	14

Result.—Epée. Teams of Four:—

OXFORD.

	Won.	Lost.
Athorp	2	2
Jarlsberg	1	3
McBain	2	2
Simey	3	1
	8	8

GUY'S.

	Won.	Lost.
Foy	3	1
Silvester	1	3
Johnson	1	3
Monkhouse	3	1
	8	8

Human was disappointing in the Foils, while Monkhouse was a great help in the Epée.

It was very pleasing and encouraging to the team to see such good support in the gallery.

Golf.

March Monthly Medal—

Winner, J. A. Vernon, 90—12=78.

April Monthly Medal—

Winner, Ian E. Buxton, 1 down.

ON Saturday, May 2nd, a team journeyed down to St. Leonards to play the Hastings Medico-Dental Golfing Society, of which several old Guy's men are members. The Hospital Golfing Society was beaten by 7 matches to 5. A most enjoyable day was spent.

SINGLES.

Glover	0	v.	Kelt	1
Cann	0	v.	Cutler	1
Bown	1	v.	Gowond	0
Pye-Smith	0	v.	Lee	1
Anderson	1	v.	Broadribb	0
Evans	0	v.	Ligat	1
Porter	1	v.	Hilyer	0
MacLagan	0	v.	Baird	1
	3			5

FOURSOMES.

Glover & Cann ...	0	v.	Kelt & Cutler ...	1
Pye-Smith & Evans	1	v.	Lee & Ligat ...	0
Anderson & Porter	0	v.	P. & F. Hodgkinson	1
Bown & MacLagan	1	v.	Baird & Brown ...	0
	2			2

Dr. Cameron has very kindly presented his annual prize of £5 to the Society. The competition for this will be played in the course of the next few weeks and full details will be posted up in the Colonnade.

The draw for the "Staff" Cup is up on the Notice Board and members were requested to play off their matches in the Preliminary and First Round before May 19th.

The Thirty Club.

MEMBERS are reminded that the Fourth Annual Dinner will be held at Oddenino's Restaurant, on Saturday, May 30th, at 8 p.m, and that tickets may be obtained from the Honorary Secretary, V. E. Lloyd, Guy's Hospital.

Publications Received.

Oral Health, The British Medical Journal, The Nursing Times, The Journal of Cancer, The Indian Medical Record, The Isis, The Dental Record, The Antiseptic, The Navy, The St. Bartholomew's Hospital Journal, The Cambridge Gownsman, The Queen's Medical Magazine, The University of Durham College of Medicine Gazette, The Burma Medical Times, The Charing Cross Hospital Gazette, The London Hospital Gazette.

Hospital Information, etc.

Guy's Hospital Dental School.

Dental Travelling Scholarship.

A SCHOLARSHIP enabling the holder to take out a Course of at least six months' practical work in Dental Surgery at one or more Colonial or Foreign Dental Schools, will be awarded by the Treasurer, upon the recommendation of the Dental Council, in July next. The conditions attached to the Award are as follows:—

1. Candidates must be registered Licentiates in Dental Surgery of the Royal College of Surgeons of England or holders of a Dental degree of a British University, who have been educated at Guy's Hospital Dental School.

2. The Scholar will be required, within the twelve months succeeding his appointment, to take out a course of at least six months' practical work at one or more Colonial or Foreign Dental Schools or Colleges previously approved by the Dental Council.

3. The Scholar will be required to present to the Dental Council a report of the work which he has done during the period of his Scholarship and a certificate from the Dean or other responsible official of the School or Schools to which he has been attached, giving details of such work done, and the time occupied thereon.

4. The total value of the Scholarship will be £250, of which, unless otherwise ordered, £150 will be awarded upon the appointment of the Scholar and the remainder upon the completion of the Scholarship and the approval of the Report by the Dental Council.

5. The Scholar will be required, if desired by the Council, to act as a Staff or Extra Demonstrator of Practical Dentistry during the Academical year following his residence abroad.

Applications should be sent in to the Treasurer, Guy's Hospital, London, S.E.1., not later than July 1st, 1925.

Pass List.

Conjoint Board.

Final Examination.

April, 1925.

Medicine.

*J. S. Jacobsz.	*G. Davies.
*E. C. Warner.	*H. G. Wimbush.
*M. E. M. Jago.	*H. Kessel.
*L. R. Jones.	*P. G. Trafford.
*J. G. Kingsbury.	*S. H. Daneel.
O. F. A. Krause.	*A. W. Riddolls.
*C. P. Blacker.	H. G. Davies.
*D. A. L. Crawshaw.	*V. L. Fisher.
*S. P. Meacock.	C. H. Highfield.
*J. M. Van Schalkwijk.	*H. J. Selby.
*I. C. P. Beauchamp.	*A. S. Gough.
*J. G. S. Thomas.	*R. W. Cunningham.
*S. V. Strong.	A. C. Taylor.
*H. Moore.	H. E. Taylor.

Surgery.

C. F. Parry.	*W. S. Whimster.
*C. P. Blacker.	*D. R. Martin.
*J. G. S. Thomas.	J. N. Human.
B. E. Hawkins.	*G. W. Murray.
*S. V. Strong.	*D. C. Drake,
J. A. Simons.	H. N. Collier.
F. H. Pratt.	J. L. Groom.
*M. F. Butler.	F. St. J. H. Silvester.
*D. R. Grant.	E. Bowen Jones.
A. Elliott.	C. B. Andrae.
R. W. Edwards.	H. L. Peake.
T. I. Williams.	H. E. Lewis.
*R. L. Waterfield.	E. G. Smallbone.
*P. R. T. Becker.	R. C. May.
W. B. Norcott.	

Midwifery.

J. A. Simons.	A. H. Musgrove.
J. N. Anderson.	M. G. Nimatallah.
F. H. Pratt.	J. Dywien.
H. P. Yew.	W. H. Dowell.
D. W. E. Lloyd.	D. A. Newberry.
C. H. C. White.	A. F. H. Stewart.

*The above have completed the examination.

Society of Apothecaries of London.

April, 1925.

Midwifery.

R. V. Cookes.	*T. McD. Kellough.
B. Horwitz.	S. R. G. Pimm.

*Has now completed the examination.

Papers by Guy's Men.

J. B. Leathes, F.R.C.P. Croonian Lectures on the Rôle of Fats in Vital Phenomena. Lecture II. Illus. —*Lancet*, 1925 i, p. 853.

J. A. Ryle, M.D., F.R.C.P. Anorexia.—*Clinical Journal*, 1925, liv, p. 181.

H. C. Cameron, M.D., F.R.C.P. Lumleian Lectures on some forms of Vomiting in Infancy. Lecture I.—Vomiting due to Obstruction from Developmental Defect in the Upper Alimentary Tract. Illus. —*B.M.J.*, 1925, i, p. 765.

——. Lecture II.—Vomiting due to Obstruction from Neuromuscular Inco-Ordination.—*Ibid.*, 1925, i, p. 815.

W. H. Ogilvie, F.R.C.S. Infections of the Alimentary Tract.—*Brit. Journ. Surg.*, 1925, xii, p. 752.

G. H. Hunt, M.A., M.D., F.R.C.P. The Treatment of Cardiac Failure.—*Clinical Journ.*, 1925, liv., p. 205.

C. P. Symonds, M.D., F.R.C.P. An Address on Sleep and Sleeplessness.—*B.M.J.*, 1925, i., p. 869.

H. C. Cameron, M.D., F.R.C.P. Lumleian Lecture on Some Forms of Vomiting in Infancy. Lecture III Some Forms of "Habitual Vomiting" (Illus.).—*B.M.J.*, 1925, i., p. 872.

J. B. Leathes, F.R.C.P., F.R.S. Croonian Lectures on the Rôle of Fats in Vital Phenomena. Lecture III. Myelin Forms of Lecithine (Illus.).—*Lancet*, 1925, i., p. 957.

——. Lecture IV.—*Ibid.*, p. 1019.

A. H. Tubby, C.B., C.M.G., M.S. Rickets and the Deprivation of Sunshine and of Ultra-Violet Renal Cirrhosis.—*Practitioner*, 1925, cxiv., p. 343.

H. L. Attwater, M.Ch., F.R.C.S. The Importance of the Early Recognition of Urethral Strictures of Large Calibre.—*Ibid.*, p. 357.

Notices.

Society for Relief of Widows and Orphans of Medical Men.

WE have much pleasure in bringing before the readers of the Guy's Hospital GAZETTE notice of this Society, which is both provident and beneficent in nature; Provident, in as much as should a member die before he has been able to make provision for his dependants, his widow and orphans will not be unprovided for; Beneficent, in as much as, should his widow and orphans be provided for, the subscriptions paid will help to alleviate the distress of the widows and orphans of less successful members. Membership is open to any registered Medical Practioner, who at the time of his election is resident within a twenty-mile radius of Charing Cross, the Annual Subscription for a Member under 40 years of age at the date of his election being two guineas.

The Society is one of the richest of its kind in the United Kingdom, and newly qualified men would do well to write for further particulars to the Secretary at the Offices of the Society, 11, Chandos Street, Cavendish Square, W.1.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

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The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

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There is a special Nurses' Outfitting Department on the second floor.

Birth.

TALBOT.—On April 22nd, 1925 at "Runnymede," Falkland Road, Southport, to Mabel (née Williams) the wife of Mr. F. Heyworth Talbot, a son.

Marriage.

GUNSTON—MILLER.—On the 8th April, 1925, at Great St. Mary's Church, Cambridge, by the Rev. Canon Hulbert, Vicar of the Parish, David, youngest son of Mr. and Mrs. W. H. Gunston, to Ethel Rosa, only daughter of Mr. and Mrs. Sidney J. Miller, of Cambridge.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

ONCE upon a time, so very long ago that we can now refer to the matter without the risk of raising evil passions, we published our considered opinion of the paradox. It was an opinion that was not accepted in some of the most intelligent circles, and strong words were said about it. To our regret none of these words was submitted in writing so that our readers were denied the privilege of reading the defence of the paradox, but at that time we were writing merely to prevent one of our sentences from being mistaken for a paradox; to-day we write to deplore the paradoxical behaviour of Guy's students.

Men vary so much in displaying their feelings that very few signs of emotion are now able to cause surprise. Thus, on reading in a newspaper appreciation of a famous French actor that he was very fond of animals and always visited the Zoological Gardens when in London, one may consider such visits as curious manifestations of his fondness, but they will not cause surprise. It may even be thought that his visits to this zoological gaol were meant to cloak his zoophily, just as others hide their philanthrophy by the affectation of severity. That, we think, must be the explanation of this ostensible paradox and a similar explanation, we hope, may be attributed to the paradox of the student.

We do not love the boaster and always strive to boast in as modest a manner as possible, preferring to mention our proudest achievements in an offhand manner, as though we considered them of little account, to stressing them in more obtrusive fashion. It can be done, we find, with the greatest of humility and the maximum of effect, after this manner—

"Good morning, Mr. Editor, what lovely weather!"

"Yes, Mrs. Everyman, the river looked so fresh to-day."

"Oh, have you been on the river?"

"Well, just for a little while. We watched the Inter-Hospital Boat Races. Guy's won both the senior and junior races again. We always think the Thames is so fresh at this time of the year."

Or—

"Nice weather, Mr. Editor."

"Yes, Mrs. Everyman, Walham Green looks greener than ever."

"Why, what have you been doing at Walham Green?"

"Oh, just watching Guy's win the London University Sports Cup, and we think the top of a bus is so attractive on a fine,spring afternoon."

We love these modest little conversations and always glow with such satisfaction when Mrs. Everyman continues them by telling us what a very sporting hospital Guy's Hospital is.

Well, so it is; very sporting. There are always men to put their enthusiasm and physical energy to the noble task of keeping the Inter-Hospital and University Cups in the College smoking-room, and there are always men who tell each other with great feeling that something must be done about it, whenever a cup is lost. Here, then, comes the seeming paradox, for from such a large sporting hospital, less than five per cent. of the students travelled to Honor Oak Park on a perfect afternoon to witness their own athletic sports. That is so very strange as to be *almost* surprising. The Staff were there in large numbers, so were the friends and relations of the competitors, but of the students there were perhaps forty. There were actually more of them at Putney for the boat races than there were at Honor Oak Park for the sports, yet even there they were well outnumbered by the Staff. How does this happen in such a "sporting hospital"? Have all the sporting members grown up and joined the Staff? If so, it behoves the ambitious to be sporting.

▭

This week the Hospital has been visited by a number of the members of the Inter-State Post-Graduate Assembly, for whom were provided operations in the theatres, demonstrations in the medical wards, and tea in the Superintendent's House. This "irruption from the greatest republic in the world—the republic of medicine," as Sir John Bland-Sutton has term it, has been a very pleasant one and we hope that our visitors will carry away from the Borough happy memories of their visit. We have only heard of one case of dissatisfaction, and that was so slight and was so quickly rectified, that it is hardly worth recording. A lady delegate asked the way to the operating theatres at the front lodge and one of the residents, with ready courtesy, escorted her to the foot of the steps with every intention of walking up them to the theatre floor. It was not until his companion stood firm and asked, "Don't we ride?" that he realised the full resources of the Hospital, and led her to the lift.

▭

We are very glad to announce that Mr. B. G. Scholefield has been awarded one of the recently instituted Commonwealth Fund Fellowships, enabling him to continue his post-graduate studies at one of the American Universities, and hope that his communications to the Gazette will from time to time console those of us who are less fortunate.

▭

In the account of the Inter-Hospital Boat Races it will be read that the Guy's eight has won every heat and final in which they have rowed. This is due partly to the excellent coaching that they have received, but also in great part to the keenness with which they have given up their spare time to training. This keenness still exists and we hope that difficulties in connection with the proposed entry at the Marlow Regatta will not prove insuperable. We have an excellent and willing crew to carry our colours on the water and we understand that the only real difficulty to sending them to Marlow is one of expense. It will be a very surprising thing if this paltry difficulty be not speedily removed.

Tuberculosis of the Skin.

A Clinical Lecture given by H. W. BARBER, M.A., F.R.C.P.

TUBERCULOSIS involves the skin in several ways, and the various forms of cutaneous tuberculosis may be classified as follows:—

1. *Miliary tubercles* in which the skin, like other organs is affected by a general miliary tuberculosis.
2. *Lupus vulgaris.*
3. *Lupus verrucosus seu verruca necrogenica*
4. *Scrofuloderma.*
5. *Tuberculous gumma.*
6. *Tuberculous ulcer.*

   These last five forms are due to the actual growth of the tubercle bacillus in the skin or subcutaneous tissue.
7. *The Tuberculides,* of which there are several varieties, and which may be regarded as cuti-reactions, in a person already sensitised to tubercle, provoked by endogenous inoculation of the dermis or hypodermis by tubercle bacilli carried in the blood stream.
8. *Lupus pernio and the Sarcoids,* which together represent the cutaneous manifestations of the *Benign Lymphogranuloma* of Schaumann, the tubercular origin of which is not yet absolutely proved.

Lupus Vulgaris.

This, the most familiar form of tuberculosis of the skin, is happily becoming much less common, and it is comparatively rare now to see the terrible mutilations that the disease is capable of producing. The primary lesion of lupus is a characteristic miliary nodule, embedded in the skin and representing histologically a minute infective granuloma; it may conveniently be called a *lupoma.* In size it ranges from that of a pin's head to that of a large pea; in colour it varies from yellowish to brownish red, with sometimes a bluish tinge; it may form a raised papule or nodule on the surface of the skin, or may not project at all; it has a translucent look and is soft in consistency, being easily pierced by a sharpened match. A patch of lupus may begin by the appearance of a single nodule of this kind, which gradually enlarges, while near it others are formed, or by two, three or more arising simultaneously. The patch spreads by the enlargement of individual nodules and the formation of new ones, and there is a tendency for these isolated lesions gradually to coalesce. Under vitropression lupus nodules present a very characteristic appearance. They look, as Hutchinson aptly said, like specks of apple-jelly embedded in the skin, and their translucency is due to the local disappearance of the elastic and connective-tissue network.

If left untreated, a patch of lupus tends to undergo one of two changes. In some cases spontaneous cicatrisation takes place in the centre, while the patch tends slowly to extend at the borders by the formation of fresh nodules. But in the central, soft, white scar, a few nodules persist or reappear, and this characteristic feature is of importance in the differential diagnosis between lupus and the serpiginous syphilides. In other cases the overlying epidermis is destroyed, so that there is ulceration, with secondary pyogenic infection and the formation of impetiginous crusts.

There is very considerable variety in the clinical appearances of the disease according to the predominance of one or other of the above processes. Thus, in some cases the nodules are small and superficial, and the patch is red and scaly, and projects hardly or not at all above the level of the surrounding skin. This type (L. erythematoides) is often mistaken for lupus erythematosus; on vitropression the characteristic apple-jelly nodules may be seen, but sometimes are only recognisable on microscopical examination. In other cases the nodules are large, confluent, and raised to form a tumour (L. tumidus or hypertrophicus). Sometimes, probably as the result of secondary pyogenic infection, an ulcerating patch develops papillomatous vegetations, soft at first and later becoming warty, thus resembling lupus verracosus (Lupus papillomatosus). Patches which ulcerate at the margin while undergoing spontaneous cicatrisation in the centre, imitate ulcerating syphilides (L. serpiginosus). Formerly the non-ulcerating forms of lupus were termed L. non-exedens—the ulcerating L. exedens, but this distinction is somewhat artificial. The most malignant type of ulcerating lupus—L. vorax seu phagedænicus—is fortunately rare; it may rapidly produce the most frightful destruction and deformity.

The course of lupus is essentially chronic and its spread insidious. Although spontaneous involution with scarring commonly occurs, the disease extends peripherally, fresh nodules arise in the scarred area, and, except in lupus disseminatus, it is exceedingly rare for a natural cure to result.

Distribution.—Lupus affects both the skin and mucous membranes. It may spread from the skin to mucous membrane, but, as Audry insists, it is probable that the reverse is true far more commonly than was originally supposed.

On the skin the face is the commonest site (78 per cent. according to Sequeira). Emlyn Jones found that the disease started about the nose in 28 per cent. and in other parts of the face, including the auricles, in 48·4 per cent. In 1·8 per cent. the lips, in over 13 per cent. the neck, and in 8·5 per cent. the trunk or extremities were the primary site. It is rarely seen on the scalp, forehead, upper eyelids, genitals, axillæ, or on the palms and soles.

The mucous membranes are affected in a large percentage of cases (43·25 per cent. among Sequeira's cases, 80 per cent. in Christiansen's series at the Finsen Institute). The nose, mouth, palate, pharynx, larynx, tongue, nasal duct, lachrymal sac, conjunctiva, and middle ear may be involved.

The nose is by far the commonest site, and is frequently the primary source of involvement of the skin. Sometimes the infection spreads up the nasal duct to the lower eyelid and conjunctiva, or from a primary tubercular lesion of the conjunctiva it may spread downwards and infect the nasal mucous membrane, and thence the skin. On the palate, pharynx, and in the mouth lupus appears as a pinkish-red, mamillated patch, with here and there small ulcers, which may extend until the whole area is ulcerated and crusted. On the gums it produces swollen, red, fleshy granulation, and the teeth often become loose. On the tongue, a rare site, a papillomatous patch is the rule, but ulceration may occur.

Anatomy.—The epidermis is usually atrophied, and beneath lies a mass of tubercular tissue, consisting of lymphocytes, epithelioid areas and plasma cells, and here and there typical giant-cell systems. There is destruction of the elastic and connective tissue and of the blood vessels, and the newly-formed tissue undergoes degeneration without actual caseation. The histological picture, of course, varies according to the type of the disease and the presence or absence of ulceration and secondary infection. Tubercle bacilli may be demonstrated, but, as a rule, only after prolonged search through serial sections.

Diagnosis.—The conditions for which lupus is likely to be mistaken are tertiary syphilis, rodent ulcer, nodular leprosy, lupoid sycosis, certain forms of sarcoid, and lupus erythematosus; it is not uncommonly from carelessness confused with impetigo, impetiginised eczema and psoriasis.

From a tertiary syphilide it may be distinguished by the age of onset, by the length of history (since, with the exception of lupus vorax, lupus takes many years to produce lesions of the same extent as a syphilide of a few weeks' or months' standing), by the soft consistency of its nodules and their apple-jelly appearance on vitropression, and by the presence of nodules in the central scar. Necrosis of bone is never caused by lupus.

The Wassermann reaction should always be done, even if the diagnosis of lupus is certain, since there appear to be mixed cases—usually lupus in a patient with congenital syphilis—in which antisyphilitic treatment leads to striking improvement.

From lupus erythematosus the diagnosis may be difficult in certain cases. The chief points of distinction are the symmetrical distribution of lupus erythematosus (although by gradual spread lupus vulgaris may produce a laterally symmetrical patch over the nose and cheeks); the involvement of the scalp, edges of the ears, and fingers; the absence of ulceration and non-involvement of cartilage; and the different appearances on vitropression.

The small nodular sarcoid may imitate lupus very closely, but the nodules are harder, the histology is characteristic, and guinea-pig inoculations are always negative.

The age of onset, the hard, pearly nodular edge, and the clean-cut ulceration, distinguish rodent ulcer from lupus.

Ætiology.—The disease is due to the actual growth in the skin or mucous membrane of the tubercle bacillus, which may be either of a human or bovine strain, the proportion varying in different countries. From the researches of Griffith and others it is evident that in most cases the strain, whether human or bovine, is of low virulence. Although lupus may begin at any age, in more than half the cases it appears before the tenth and in over 80 per

cent. before the twentieth year. It is more than twice as common in females than males, and occurs far more frequently in Northern Europe than in the South, partly because of the lack of sunlight, and is comparatively rare in the Colonies, the tropics, and in America. It affects, as a rule, scrofulous persons, who have been infected with tubercle in early life, and a strong family history of tuberculosis is often obtainable. It is almost invariably associated with tubercular adenitis, and sometimes with tuberculosis of bones, joints or the peritoneum. As Besnier pointed out, phthisical persons do not develop lupus, whereas patients with lupus frequently become phthisical. As regards the actual mode of infection of the skin, this may occur (1) directly from without, (2) by extension from deeper tubercular foci or from mucous membranes, (3) through the blood stream. The first method is probably common and doubtless accounts for the frequency of the disease in or around the nose, the organism being carried by dust or by the fingers; cases in which it has started in vaccination or tattoo marks, or after piercing the ears for earrings have been recorded.

The second method is instanced by the occurrence of lupus in the skin over tubercular glands, which have broken down or been excised, and by the spread of infection from the nasal mucous membrane or viâ the nasal duct from the conjunctiva. The third method accounts for the multiple disseminated patches of lupus that appear most commonly after measles or whooping cough, and it is probable that infection of the skin through the blood stream is commoner than is usually believed.

Complications.—Apart from the disfigurement and mutilation that the disease may cause, the chief complications that occur are erysipelas and squamous-celled carcinoma. An attack of erysipelas may have a beneficial and even curative effect, as in the cases described by Hallopeau and Sequeira.

Although carcinoma is a rare complication of lupus, particularly in women, its incidence has greatly increased since the introduction of the X-rays, the long-continued application of which is entirely unjustifiable in this disease.

Treatment.—It must be remembered that the vast majority of patients with lupus have other tubercular foci apart from the skin, and that a considerable proportion die from visceral tuberculosis. For this reason general treatment directed towards raising the patient's resistance in every possible way should be instituted. Heliotheraphy, as carried out by Rollier at Leysin, is the method of choice, and is undoubtedly superior to any other known therapeutic measure. In England and countries which obtain relatively little sunshine, excellent results are achieved with the carbon-arc and mercury-vapour lamps. At Alton true heliotherapy is combined with the artificial light baths. The introduction of this treatment has revolutionised the therapy of lupus and other forms of chronic tuberculosis, and has rendered unnecessary many of the local measures that were formerly employed. In addition, the internal administration of iodine and of cod liver oil is of great value. The former should be given in the form of a 10 per cent. solution in rectified spirit, of which 5 drops in milk may be taken at first twice daily, the dose being gradually increased up to as much as 60 drops per diem, if well tolerated.

Injections of tuberculin, if given prudently over a long period, are undoubtedly beneficial. Remarkable improvement is also sometimes obtained with intramuscular injections of calomel, but the results are inconstant.

Local Treatment.—Before employing any local measures for the destruction of the lupus tissue, it is advisable, in view of the remarkable results now being obtained by heliotherapy or the artificial light baths, to observe to what extent spontaneous healing will take place under such treatment combined with the internal administration of iodine and cod liver oil. From the cosmetic point of view local phototherapy with the Finsen arc lamp undoubtedly gives the best results, the resulting scars being smooth and supple. The method is, however, very tedious and expensive and cannot be employed on the mucous membranes. The use of the X-rays should, as is now generally admitted, be reserved for the ulcerating, vegetating, or papillomatous types of this disease. It may be combined with the application of the galvano-cautery or with periodical scarification. Large doses of the X-rays or their continued use over long periods is entirely unjustifiable owing to the risk of a subsequent radiodermatitis with ultimate epitheliomatous degeneration of the scar.

The thermo-cautery and galvano-cautery are useful adjuncts to treatment, and are of par-

ticular value in lupus of the mucous membranes. Recently diathermy has been employed with excellent effect. Scarification, if correctly performed, gives scars hardly less satisfactory than those obtained with the Finsen lamp, but it is a tedious and painful method; it is, however, the method of choice for rapidly extending, vegetating lupus (L. vovax), and for the treatment of nodules embedded in scars. In France the filiform douche is being used with good results for the destruction of lupus tissue. Various caustics, such as arsenious acid, pyrogallic acid, trichloracetic acid, the liquid acid nitrate of mercury, and a combination of salicylic acid and creosote in plaster form have a selective action on lupus tissue, but cause considerable pain, particularly arsenious acid. Adamson's method of employing the liquid acid nitrate of mercury is simple and gives excellent results.

It is carried out as follows: The lupus nodules are gently rubbed for from one to two minutes with a piece of cotton-wool twisted round the closed ends of a finely pointed pair of forceps, and moistened with the liquid. No subsequent dressing is necessary, although it is advisable to keep the treated surface covered with a piece of clean lint or gauze. A good deal of inflammatory reaction ensues, and a scab forms, which becomes detached in course of time, leaving a smooth pink surface. The subsequent scar compares favourably with that obtained with any other method, except the Finsen light. The applications are painful, but an anæsthetic is seldom required.

The Tuberculides.

In 1896 Darier introduced the term "tuberculides" to designate a group of eruptions, which occur in persons having a manifest tubercular infection, and which, although differing from each other in their clinical appearances, are frequently coexistent in the same patient, thus indicating their relationship and common origin. The following classification of these eruptions has been suggested by Darier:—

A. Cutaneous Tuberculides, in which the lesions are dermo-epidermic.

1. *Lichenoid Tuberculides.*—Lichen scrofulosorum; lichen nitidus.
2. *Papulo-necrotic Tuberculides.*—Folliclis; acnitis.
3. *Acneiform Tuberculides.*—Acne cachecticosum (a variety of the preceding).
4. *Lupoid Tuberculides.*—Benign sarcoid of Boeck.
5. *Erythemato-atrophic Tuberculides.*—Lupus erythematosus; certain atrophodermias.
6. *Erythematous Tuberculides.*—Lupus erythematosus disseminatus.

B. Subcutaneous Tuberculides.—Erythema induratum scrofulosorum; subcutaneous sarcoid of Darier-Roussy; disseminated nodular sarcoid.

In the case of some of these dermatoses, however, actual proof of their tubercular nature is lacking. The undoubted tuberculides are:—*Lichen scrofulosorum, Papulo-necrotic tuberculides, Erythema induratum scrofulosorum.* Schaumann considers that *the sarcoid of Boeck and lupus pernio,* which, as he has shown, are merely the cutaneous manifestations of his "benign lymphogranuloma," are caused by infection with a bovine strain of the tubercle bacillus, but this view is not universally accepted. Definite evidence is wanting as to the cause of *lichen nitidus,* though the histological appearances of the lesions are in favour of its tubercular origin. *Lupus erythematosus* is certainly not always a tuberculide, although it may be in some cases.

Ætiology of the Tuberculides.—The tuberculides result from the embolism in a blood-vessel either of the skin or subcutaneous tissue of tubercle bacilli carried in the blood stream from some focal tubercular lesion. They occur in persons who have been sensitised to tubercle usually, if not always, by an infection in early life, and whose resistance to the infection is, as a rule, good. The actual lesions represent inflammatory reactions produced by the interaction of the antibodies present in the sensitised tissues and the bacilli, this reaction bringing about destruction of the latter, so that the lesions heal with or without scar formation. It is obvious that for their occurrence the presence of antibodies is essential, and this probably explains why disseminated patches of true lupus may follow an attack of measles in a tuberculous person, since measles causes a temporary disappearance of tubercular antibodies, so that the bacilli survive and multiply.

An important factor in the genesis of tuberculides is circulatory stasis; the papulo-necrotic variety is seen in scrofulous persons with

a chilblain-circulation, and the sites of election are those in which the blood flow is most stagnant, and erythema induratum occurs almost exclusively in young females with cyanotic, œdematous-looking legs.

As might be expected, owing to the rapid destruction of the bacilli; it is only rarely that they are demonstrable in tuberculide lesions. They have, however, been found in lichen scrofulosorum and erythema induratum. Inoculation of guinea-pigs with tissue from the lesions has more often given positive results. Injections of tuberculin not only give rise to focal cutaneous reactions, but may provoke an outbreak in a tubercular person of tuberculides not previously present. Moreover, minute doses of tuberculin, given at suitable intervals, have a striking curative effect on erythema induratum and the papulo-necrotic tuberculides.

Apart from the types of tuberculide already referred to, mention must be made of the eczema scrofulosorum of Boeck, and of the probable tuberculous origin of erythema nodosum in rare cases and even of erythema multiforme.

Eczema scrofulosorum is seen in young children with glandular and other forms of tuberculosis. It occurs as characteristic eczematous plaques, usually of a pinkish-brown colour, dry and scaly or oozing and crusted, situated most commonly in the face, trunk and limbs. In a series of 50 cases, investigated by Attwater, Marshall and Barber, definite evidence of active tuberculosis was found in over 80 per cent. The eruption is not infrequently accompanied or followed by lichen scrofulosorum and doubtless corresponds to the eczematoid trichophytide described by Jadassohn and Guth.

Erythema nodosum is usually a manifestation of sensitisation to a streptococcus, but it is also one form of trichophytide, and strong evidence has been adduced by Landouzy, Gougerot and others that it may in certain cases be a tuberculide.

Prostatectomy under Regional Anæsthesia.

THE patient, J. B., æt. 73, was admitted to Naaman, under Mr. Rowlands, on 18th April, 1925, complaining of nocturnal enuresis, precipitancy and frequency of micturition. He was an emphysematous subject who looked fully his age. He gave a history of four attacks of rheumatic fever, the last being in 1915. Examination of the cardio-vascular system showed signs of myocardial degeneration with aortic incompetency. The systolic blood pressure was 170 mm. of mercury and the diastolic only 70.

For four months prior to admission he had been getting out of bed four or five times a night to pass water, and on two occasions in January had passed a considerable amount of blood. A rectal examination revealed a moderately enlarged prostate with no fixation or irregularity to suggest malignancy. A blood urea test by Dr. Ryffel indicated ·46 grams per litre, slightly above the normal value.

As it was decided that the patient's condition would not allow of the administration of a general anæsthetic, an attempt was made to operate under spinal anæsthesia. An injection of ·8 c.c. of a 5 per cent. Stovaine solution was injected into the subarachnoid space on 20th April, 1925, but as this was immediately followed by an alarming collapse the patient was sent back to bed without anything further being attempted. The syncope passed off in a few hours with the aid of stimulants and ten days later the prostate was removed under transsacral nerve block with infiltration of the anterior abdominal wall.

The patient was prepared as follows:—

The bowels having been cleared and a hypnotic given the night before, at 11 a.m. the lower abdomen and sacrum was shaved and prepared for operation in the ordinary way. Screens were kept round the bed thereafter, and plugs of greased wool placed in the patient's ears to prevent his being disturbed. At 12 noon an injection of morphia, grs. 1/4, and scopolamine, grs. 1/150 was given. The patient then went to sleep and at 1.20 p.m. was very gently lifted on to a trolley and taken to the theatre. Here a further injection of atropine, grs. 1/100, and scopolamine, grs. 1/400 was given.

He was then placed prone on the table with an air pillow under the pelvis. The sacral hiatus was located by palpating the lower end of the sacral ridge and the sacral cornua (see diagram). A solution of 0·75 per cent. Novocaine to which 2 m. of Adrenaline were added per 30 c.c. was used, and a dermal wheal was made over the hiatus. A spinal needle with a stylet was then passed through the anæsthetised skin at an angle of 60 degrees to the surface and made to pierce the sacrococcygeal membrane and enter the sacral canal. The base of the needle was then depressed so that the needle passed freely up the canal for about one inch further. The stylet was withdrawn and no blood or cerebro-spinal fluid escaped showing that the needle was not in a vein or the theca; 30 c.c. of the novocaine solution were then slowly injected.

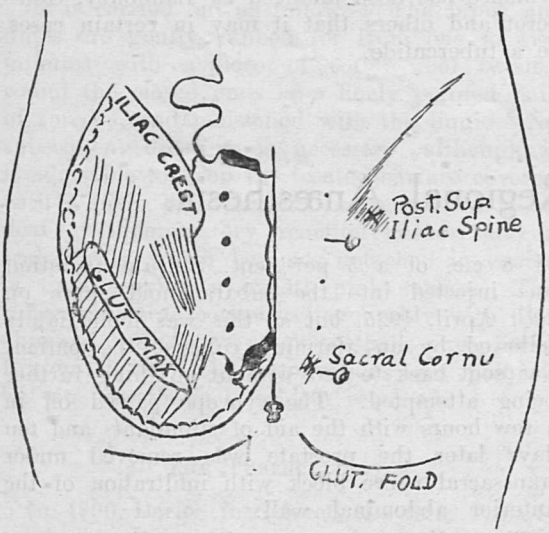


Diagram showing the landmarks for transsacral nerve block. On the left a dissection, on the right surface markings. Needles are shown in the 2nd and 5th sacral foramina and in the sacral hiatus.

The next step was to locate the posterior sacral foramina. The fifth was found by inserting a small needle immediately below and to the outer side of the sacral cornu. The second half was found by taking a point half an inch below and one inch internal to the posterior superior iliac spine. On a line joining these two points which were marked by the needles, the third and fourth foramina were found at the points of trisection. The first was entered at a point on this line as far above the second as the third was below it.

By this manœuvre all the sacral foramina on both sides were injected, the only difficulty being experienced at the third on each side where two attempts had to be made; 9 c.c. of the novocaine-adrenaline solution were injected into the first, 8 c.c. into the second, 6·5 c.c. into the third, 5 c.c. into the fourth, and 4 c.c. into the fifth.

The last injection was made into the first left posterior sacral foramen, and in doing so some of the fluid escaped from the needle which had been left in the sacral hiatus, showing that the whole sacral canal was infiltrated with the solution.

A sterile pad was then placed over the sacrum and the patient turned over. A field block of the suprapubic region was next done. Dermal wheals were made above each pubic spine, and about two inches below the umbilicus. Deep injections through the sheath of the rectus abdominus were done first, and then the subcutaneous tissue infiltrated; 10c.c. of the solution were also slowly injected into the Space of Retzius.

In all about 190c.c. of the solution was used and the injection took 35 minutes.

Mr. Rowlands then operated and removed the prostate by the suprapubic route. The patient moved his left leg slightly when the skin incision was made, but after that remained quiet throughout the operation, showing no signs of distress whatever. Fifteen minutes from the incision he was on his way back to bed, where he immediately fell asleep till late in the evening. When he woke up he was entirely unaware of the whole performance, and needed considerable persuasion before he realised that the operation had not still to be faced.

Except for some mental confusion on the third and fourth days after the operation his recovery has been uneventful.

We are much indebted to Mr. Rowlands for his permission to publish this case.

B. L. LAVER.
B. G. SCHOLEFIELD.

References :—

Braun's Local Anæsthesia.

Wm. R. Meeker and Barnet E. Bonar, "Regional Anæsthesia in Gynæcology and Obstetrics," S.G.&O., December, 1923.

A Case of Cerebral Hernia: Amputation.

WINIFRED H., æt. 13, was admitted into Esther Ward on the 3rd January, 1925. Her history was as follows: She had had for six months slight pain, deafness, and discharge from the left ear; had been eating poorly and losing weight. For the past three weeks the discharge from the ear had ceased, and she had been drowsy, refusing food, and complaining of severe headaches.

2nd January.—Patient vomited twice. There was a little foul, bloodstained debris in the left meatus; drumhead scarred and red, no landmarks; there was no mastoid tenderness. Dr. Symonds saw the patient, and drew attention to the form of aphasia known as word-forgetfulness—on being given a pencil to handle she recognised the object, but called it a penny—which is typical of a temporal abscess. There was bilateral papillœdema most marked on the right side, both plantar reflexes were extensor, the abdominal reflexes were absent on the right, and there was a paresis of the right face.

3rd January.—Operation by Mr. Mollison. A large, extra-dural abscess lying over the sinus and middle cranial fossa was exposed; sinus forceps were directed upwards towards the tempori-sphenoidal lobe, and their withdrawal followed by a rush of thin fluid—? lateral ventricle.

6th January.—The presence of pus in the lateral ventricle being suspected, the dural opening was again explored with sinus forceps, and more thin fluid was obtained, followed by a quantity of thick pus (ii oz.)

Drainage tube inserted.

10th January.—Child rather better; papillœdema decreased on left, still marked on right side.

12th January.—Paralysis of left external rectus.

19th January.—Post-auricular cerebral hernia amputated; formalin (20 per cent.) applied. Small abscess opened, drainage tube inserted. Microscopical examination of amputated portion showed it to consist of "proliferating granulation tissue, containing a little necrotic brain tissue."

30th January.—Some post-papillitic fibrosis of the right optic disc, papillœdema of left disc rapidly resolving. Child could read fairly well.

4th February.—Radium applied for twelve hours. Daily dressing consisted of hydrogen peroxide bath, insertion of sinus forceps along track of pus, and bandaging over a sponge wrung out of Dakin's solution to keep down the unpleasant odour of pus.

5th February.—Slight purulent exudate, some superficial fibrosis, and commencing epithelialisation, but hernia again becoming extensive.

20th February.—Hernia again amputated; carbolic acid (40 per cent.) applied.

25th February.—Hernia beginning to shrink, but little exudate still present.

10th March.—Slight superficial sepsis only; marked decrease in size of tumour.

The sepsis was cleared up in the course of a fortnight. The child's general health improved gradually, and, following a long Easter week-end at Margate, she is now quite well. A plastic operation will probably be undertaken at a later date for the restoration of the left auricle to its normal level. The left optic disc is now normal; the right shows some post-papillitic atrophy, but the child sees and reads well.

The literature of cerebral hernia is not extensive, but opinion as to treatment of the condition is greatly divided, and but little help can be obtained by consulting it.

The hernia is, definitely, an attempt at more or less spontaneous relief of increased intracranial tension, but in the present instance, this had already been provided by the original exploratory operation; it is suggested that, in this case, the "hernia" was rather of an inflammatory nature—a proliferative reaction of the tissues to trauma and sepsis, analogous to the condition known elsewhere as "proud flesh"; certainly the microscopical slides show so little cerebral tissue as to be almost unrecognisable, its only adequate description being that of perfect granulation tissue.

The application of radium in this instance gave a disappointing result.

I am indebted to Mr. Mollison and Dr. Symonds for permission to report this case.

J. S.

[During the last fortnight and since the above account was written, this patient received a blow over the site of the hernia, while playing with some other children. This led to suppuration of the wound, from which she succumbed. This accident seems to have prevented what might have been considered as a radical cure.]

Removal of Tonsils in 1680.

I CAME across an old treatise by Richard Wiseman, Sargeant-Chirurgeon to King Charles II, and thought the following extracts might be of interest.

It is a happy coincidence that the leading specialist of that time was named Mol.

S. E. F.

The first Chirurgeon in my memory that attempted extirpating them was the late deceased Mr. Ed. Mol, an excellent operator.

He attempted it upon a Person of Honour by actual Cautery through a Cannula well contrived for that purpose. He passed the cautery through the Body of them and by repeating it twice or thrice he burnt a hole through them and accordingly crimpled them up as may yet be seen in that noble Person, some of the excrescence still remaining and not without some Uneasiness at certain Times. Upon which Account I had the honour to see it some years since.

Now observe how he does the operation himself on another person of Honour aged 10. "I began with the Left Tonsil holding her Tongue down with a Speculum Linguæ, while I pressed into the Body of the Tumour with a long pointed Caustick Stene fixed to a Stick. After I had held it a while I pulled it out, and with a Fine stick dipt in oleo vitrioli pressed into the same place, then pulled out that too and gave her a Glass of Water to wash her Mouth.

I repeated the use of the several Causticks. By this method I penetrated into both Tonsils and divided the left into two—having divided the one Tonsil and diminished the other I caused an instrument to be made to convey a Ligature about the Basis of them with design to cut them off one after the other.

I began with the Left Tonsil passing a Ligature upon the one half and cut it off close. There happening no disturbance by bleeding I tied the other and cut it off, then with a Vitriol Stene I rubbed the remaining bases and thereby smooth and cicatrised it in four or five days. Some time after she was cured, a part of her Droop came out of her nose which happened by reason of the Tonsils drawing that part of the Palate lower down than naturally it should and I suppose that was the cause of her speaking so, but some time after she was freed of these inconveniences.

Review.

Tumours and Cancers. By HASTINGS GILFORD. Published by Messrs. Selwyn & Blount, Ltd. *Price* £2 2*s*.

THE author is to be congratulated on his book, not only from its originality, but also by the thought and keen observations which must have ever been foremost in his mind in order to produce such a wonderful study.

The book is written with due consideration of the sources, genesis and causes of tumours, their nature, their possible prevention and their now surgical treatment. Particularly are the malignant growths dealt with in connection with their age incidence, and their relation to diet and reproduction. Stress is laid on the influence of civilisation on cancers; and the history, diagnosis and structure considered, although not to the same extent.

These subjects have been organised in order to obtain a comprehensive theory which is the underlying factor in the course of the book. The author states that his object is to apply common laws and regulations of genetics to the problems of disease, and thinks that all diseases, even those which are obscure, will give up their secret of origin and nature by biological methods. He shows that symptoms and structural features of these disorders can all be translated into terms of biology, and having been thus interpreted, an insight into their nature, origin, causes, and principles which guide to their prevention and cure is obtainable.

To pick out any single chapter of any single book (for the main book consists of a number of books) would be invidious. They are all equally well written and each is supplied with an abundance of references, references obtained, one would imagine, from almost every conceivable source. This in itself speaks of the labour and trouble which must have been expended to produce such a magnificent piece of work.

After the conclusions is supplied an index of (1) authors and (2) subjects.

We can only state how the book deserves to be read by everyone, so praiseworthy is it, and we would wish the author every success.

The printing and the general assemblage of the book are excellent and help to turn out what is a really fine work.

Correspondence.

Medical Men in Literature.

DEAR SIR,—Mr. Brock's article on "Medical Men in Literature" and stressing the humanities, must have afforded much recompense to those of your readers who believe a liberal education is the best antidote to "our woes."

Inevitably there are some omissions. If the famous Harvey was found by a hedge reading Virgil at the Battle of Edgehill, when in attendance on Charles I., it gives one a "cussed" pleasure when perpending the trend of the present medical curriculum. There was, too, another Royalist, who maintained and deciphered the correspondence between Charles and Henrietta—Abraham Cowley, M.D.Oxon., and author of Essays which have gained a niche in the statue of Fame.

It must be a revelation to many, Keats qualified. Are the names of the two student friends who visited him in St. Thomas's Street known? Were they Bart.'s.?

Viscount Morley was a son of a doctor, his brother was at Guy's, and I believe a Guy's man was his medical attendant. It is a strange lapse that John Morley, the rarest spirit of our time, was never a guest there.

I do not think Mr. Brock mentioned Sir William Osler. No better blend of the Physician and man of letters than Osler surely has ever adorned the profession. He was always dealing with life as well as medicine, and the "sad music of humanity," not far off. May his personality long outlast the day's work.

RICHARD GILLBARD.

St. Margaret's,
Dean Road,
Willesden Green, N.W.

Hydrology.

DEAR SIR,—Dr. Gordon, of Bath, has invited a party of Medical Students from Guy's Hospital to visit the Hydrological Station at Bath about the middle of this month. Further details will be posted later on, and I hope that some reduction in railway fares may be arranged.—Yours faithfully,

E. P. POULTON.

36, Devonshire Place,
W.1.
June 1st, 1925.

Derby Day.

[We have received on a much begrimed piece of paper a letter, which we have made out as follows.—ED.]

Dear Doctor,

I know that you are so busy always in the Hospital, and I expect that's why you forgot that Wednesday was Derby Day, and so you didn't all come back in a bus and throw pennies to us.

We waited such a long time outside the College for you, and even when Mr. Gray told us you weren't coming, we wouldn't believe it, because you've never forgotten before.

And so, Doctor, I'm writing for all of us, to tell you that next year, when Derby Day comes round, we shall be waiting for you just the same as ever.

Please don't forget again.

Yours respct.

MILLICENT McSPARRICKSROW.

Notices.

IN view of the fact that this is the Centenary Year of the Medical School, a Panoramic Photograph of the Staff and Students of the Medical School will be taken on Thursday, June 11th, at 1.30 p.m., in front of the Medical School Building.

T. B. JOHNSTON, Dean.

Guy's Hospital Clubs' Union.

ALTERATION OF RULES.

It is proposed to make the following alterations and additions to Rules 1 and 20:—

Rule 1.—Add "Guy's Hospital Sailing Club."

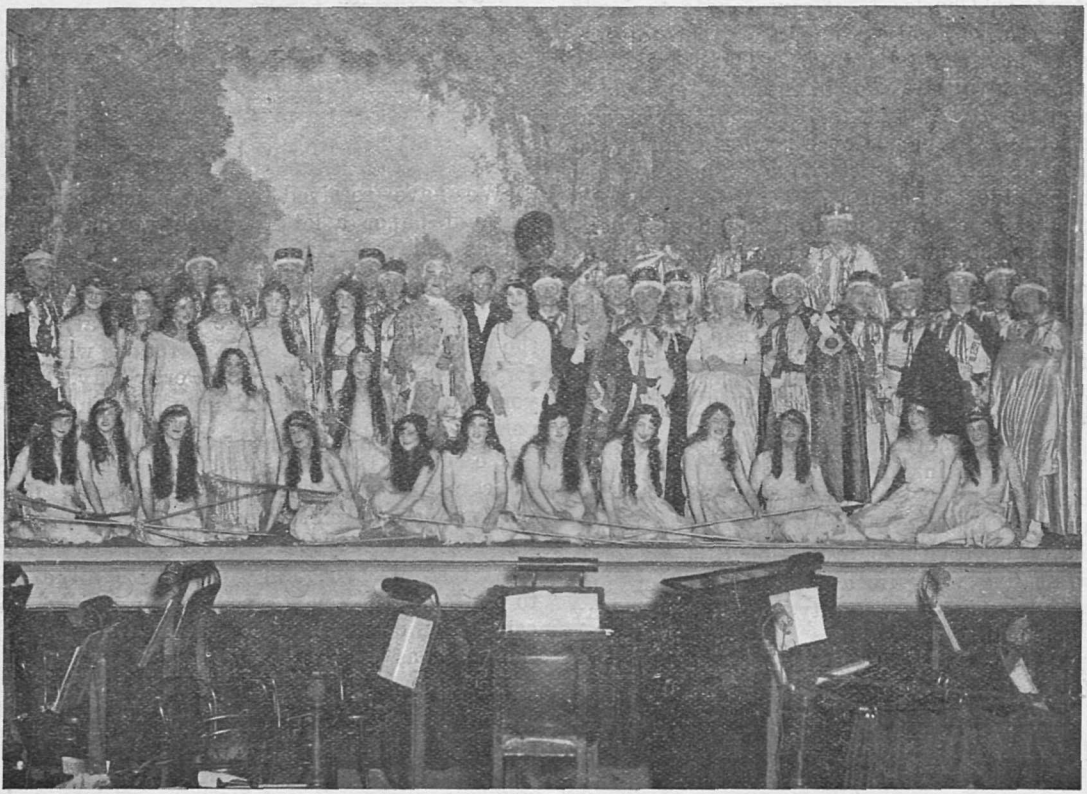
Rule 20.—Delete "After two months' default he shall cease to be a member of the Union," and insert "after two months' default if desirous of resigning his membership, he shall be required to submit his resignation in writing to the Secretary."

S. P. MEACOCK,
Hon. Sec.,
Guy's Hospital Clubs' Union.

June, 1925.

Guy's Hospital Musical Society.

THIS is an account of "Iolanthe" as it appeared to but one member of its appreciative audiences. Do not approach it, gentle reader, hoping to find it a wealth of learned musical criticism, or you will find only disappointment awaiting you. When, years ago, I first wrote up a Musical Society Concert for the GAZETTE (and so constituted myself—to my sorrow—the GAZETTE musical correspondent) it was comparatively easy to record one's views and ideas concerning the simple sort of concert that then satisfied both the Society and its friends. But those days are gone; the Musical Society of to-day is not the Musical Society of yesterday; and now it requires the pen of one trained in musical criticism to do them justice. Such a critic, however, would find his task difficult and uncongenial for no good critic is ever happy unless he can enlarge upon the faults of the work he criticises, and the Musical Society, though they have grown so ambitious, have yet remained so successful that the way of the faultfinder is indeed hard. I am not going to attempt to tread that way myself, but shall admit at once that I have nothing but praise to offer the Musical Society for the manner in which, in spite of all difficulty and disappointment they have carried through their ambitious project. For "Iolanthe" is, indeed, a difficult task for a Society, which, if we except last year's "Trial by Jury," has had no previous operatic experience.



THE CAST.

Under the circumstances, I think it was very wise of Mr. Templeman to persuade Mrs. Ethel Heck and Mr. Alfred Moore (both of

whom had helped him previously in "Iolanthe") to join the cast in the important parts of Phyllis and the Lord Chancellor. Each filled their respective parts with distinction—they sang and acted delightfully, and undoubtedly gave confidence to the other performers and incited them to act much less self-consciously than they did at the few rehearsals that I was privileged to witness. Still we shall all look forward to the day (now after "Iolanthe" not, we hope, far distant) when Guy's will be able to stage an opera that shall

MOUNTARARAT (MR. J. CHAMBERLAIN), LORD CHANCELLOR (MR. A. MOORE), PHYLLIS (MRS. ETHEL HECK). TOLLOLLER (Mr. G. T. HANKEY).

have a cast drawn from Guy's alone. I say all this entirely from a sense of patriotism and admit that at the Guildhall School of Music I forgot all this fine patriotic fervour and gave honour, applause, and laughter to Mr. Moore's every word and gesture; I loved his antics and I always hoped that he *would* take heart and make a start for a seventh time in the famous trio. How he managed to give five encores to this song immediately after having sung the nightmare song, I could never tell—it was enough to have exhausted the strongest singer. And in passing, I should like to disagree quite cordially with my distinguished colleague of the *Referee* who in his critique of "Iolanthe" says that he found Mr. Moore's Lord Chancellor inaudible. Can it be that this critic, too, was searching for some bone of contention? Certainly his notice was far more favourable than that usually accorded to amateur operatics by the *Referee*. I think that this comment *must* have been the resort of the destitute critic, who was hunting for something to cavil at. Personally I have rarely heard the Lord Chancellor's "particularly rapid unintelligible patter" to better advantage.

Mrs. Heck's Phyllis was all the time most pleasing to the ear and to the eye and her duets with Strephon were especially well received. Strephon was played by Mr. Gallagher who

sang well and was so unbelievably light afoot that I began to doubt if he had not made a mistake when he said he was a fairy down to the waist but that his legs were human. It seemed much more likely that his nimble legs were the fairy part of him. "Iolanthe" was played by Nurse Constance Evans who sang and acted her difficult part very well indeed. The real triumph of the production was, however, Nurse Sybil Evans as the Fairy Queen. Whenever she appeared she dominated the whole stage; her singing could not have been bettered Guy's. Mountararat was especially good in the way in which he played into the hands of the Lord Chancellor and so made the most of all the Chancellor's fun-making. Mr. Barber does not need my assurance that the audience liked his rendering of Private Willis's part. The applause which he received each night after the Sentry's Song and the laughter that greeted his well-spoken lines assured him of our appreciation.

The chorus, both the men and the nurses, were wonderfully good. Had I not known

PHYLLIS (MRS. ETHEL HECK), STREPHON (MR. CHAS. E. GALLAGHER).

and with her imperious mien she was every inch "a regular royal queen." It will be a great tragedy if the Musical Society lets Nurse Evans leave Guy's before they next produce an opera.

The Lords Tolloller and Mountararat were personated by Mr. Hankey and Mr. Chamberlain who proved ornaments as well of the House of Peers as of the Musical Society of them all in private life I should never have guessed that they were not experienced actors and actresses. The men were so lordly and the fairies so dainty, that it was not easy to realise that they were all ordinary mortals like ourselves. The Fairies were led by Nurse French as Celia, Nurse Wood as Leila, and Nurse Mann as Fleta. Nurse Wood took on, late in rehearsal, the part that Sister Corn-

wall was forced to abandon owing to illness. She gave a very creditable performance, though it was not until the last night that she seemed quite comfortable in the strange part. Both she and Nurse French never quite got over their stage fright. This was probably made more noticeable by Nurse Mann, who thoroughly enjoyed herself the whole time and had obviously never heard of the word "stage fright." She played with a delightful verve and abandon that was really worthy of a more important rôle.

The orchestra, again under the baton of Mr. Herbert Y. Templeman, coped with the difficulties of the small hall in praiseworthy fashion. At rehearsal they had been inclined rather to drown some of the less experienced singers, but when the performances began, their playing was far better modulated, and none of the words became lost to us. Mr. Templeman is to be congratulated on his teaching and leading both of the singers and of the orchestra.

There are two other gentlemen that we must also thank. Mr. Henry Leffler produced the opera. He took great pains in coaching the Society, in devising their actions, and in drilling them until these actions were perfect. He must have been very gratified with the final result of his labours. And Mr. Cheffins we are also indebted to because not only did he play the piano for us in the orchestra, but he came down to and accompanied all the rehearsals of the Society in the strenuous months that preceded this, their latest triumph.

The sooner the Musical Society get all these clever people together again and prepare another such entertainment as "Iolanthe" the sooner and the better shall we be pleased.

Guy's Hospital Bicentenary Appeal.

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E. J. Greenwood, Esq. (per collection)	5	5	0
S. D. Greig, Esq.	8	0	0
The Hon. Sir Sidney Greville	5	0	0
Grindlay & Co., Ltd.	21	0	0
Grosvenor, Chater & Co., Ltd.	5	5	0
H. S. Groves, Esq., M.R.C.S., L.R.C.P. (per collection)	13	5	0
Christopher Gurney, Esq. (per H. A. Trotter, Esq.)	10	10	0
Guy's Hospital Nursing Staff Collection (per Matron. Additional)	127	1	0
R. J. Halden, Esq., L.D.S. (per collection)	6	7	6
Warren S. Hale, Esq.	10	10	0
R. Hale-White, Esq., M.C., M.R.C.S., L.R.C.P. (per collection)	13	10	0
Sir William Hale-White, K.B.E., M.D. (balance of collection)	12	17	6
Hall & Co., Ltd. (per J. Gaymer Jones, Esq., M.S.)	5	5	0
Miss A. Hall	20	0	0
Miss A. Hall	10	0	0
C. Hall, Esq. (per collection)	7	6	0
F. H. Hamilton, Esq. (per Dr. N. Mutch)	5	0	0
Hammond & Co., Ltd. (per J. McNair, Esq.)	10	10	0
S. Hanfeck, Esq., L.D.S., R.C.S. (per collection)	10	15	6
Mrs. Harris (per C. H. Atkinson, Esq., M.C., M.R.C.S. L.R.C.P.)	10	10	0
H. Harris, Esq. (per Dr. W. Lansdale)	5	5	0
W. Harris, Esq. (per collection)	25	18	0
E. J. Harrison, Esq. (per Sister Bright)	5	5	0
Dr. E. M. Harrison (per A. Simpson-Smith, Esq.)	5	5	0
General Sir Richard Harrison, G.C.B., C.M.G.	5	0	0
Harrods, Ltd., Staff Collection (per E. Williamson, Esq.)	10	10	0
J. T. Hart & Sons	5	5	0
Lionel M. Harvey, Esq. (per H. A. Trotter, Esq.)	10	10	0
Hastings and St. Leonards District Dance (per H. A. Spouse, Esq., L.D.S.)	50	0	0
G. F. Haycraft, Esq., M.R.C.S., L.R.C.P. (per collection)	5	0	0
H. Haynes, Esq. (per W. E. Hills, Esq., M.R.C.S., L.R.C.P.)	10	10	0
Miss J. Haynes (per W. E. Hills, Esq., M.R.C.S., L.R.C.P.)	10	10	0
Hay's Wharf Sports and Social Association (part proceeds of Concert)	24	4	6
Heald, Bros., Ltd.	9	5	0
E. M. Hearnden, Esq., M.R.C.S., L.R.C.P.	12	8	6
C. J. Hegan, Esq.	5	0	0
Hegarty, Bros.	5	5	0
Miss K. Heinemann	5	0	0
Emil Heller, Esq.	5	5	0
E. Hemming, Esq. (per M. Bannunah, Esq.)	5	5	0
Frank Henderson, Esq.	10	0	0
Mr. and Mrs. H. Henderson	10	0	0
C. J. Henry, Esq., L.D.S., R.C.S.	10	10	0

	£	s.	d.
Mrs. A. P. Herbert	5	0	0
W. Heriot, Esq. (per G. H. Pitt, Esq.)	5	14	0
The Rev. J. and The Misses Hewetson (per Lt.-Col. H. Hewetson, D.S.O., R.A.M.C.)	5	5	0
Mr. and Mrs. Hewson (per S. H. Croucher, Esq.)	5	5	0
Heywood & Son	5	5	0
Miss Lucy C. Higgin	10	0	0
F. J. Hillier, Esq. (per W. R. Saltmarsh, Esq.)	5	0	0
G. R. Hind, Esq., M.B., B.S.	6	6	0
H. Hirschorn, Esq. (per Dr. A. F. Hurst)	10	10	0
J. J. Hirst, Esq. (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.)	5	0	0
Mrs. Reginald Hirst (per W. M. Mollison, Esq., C.B.E., F.R.C.S.)...	21	0	0
Oliver V. G. Hore, Esq.	5	0	0
R. Bower Hogg, Esq., M.R.C.S. ...	10	10	0
H. T. Holdron, Esq. (per Dr. Ryle) ...	5	5	0
Mrs. Hollebone (per W. M. Mollison, Esq., C.B.E., F.R.C.S.)	5	5	0
Major L. Holliday, O.B.E. (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.)	5	0	0
H. T. Holloway, Esq. (per W. D. Doherty, Esq., M.S.)	5	5	0
Henry J. Holman, Esq., M.R.C.S. (per collection)	7	12	0
C. W. Holmden, Esq. (per collection)	5	10	0
Sir Fred. Gowland Hopkins, M.B. ...	5	5	0
Miss Hopkinson	50	0	0
Elmslie J. Horniman (per A. W. Ormond, Esq., C.B.E., F.R.C.S.)	5	0	0
A. Horsley & Co.	10	10	0
E. Clemens Horst, Co., Ltd.	5	5	0
Hospital Saturday Fund	21	0	0
L. G. Housden, Esq. (per collection) ...	17	17	0
J. Howell, Esq., C.B.E., F.R.C.S. ...	5	5	0
W. F. Hudson, Esq. (per collection) ...	12	7	6
Miss Huggett (balance of collection) ...	6	16	0
Dr. G. F. Hugill	10	10	0
Mrs. M. K. Hunter (per Dr. J. J. Conybeare, M.C.)	5	5	0
Miss B. Martin Hurst (proceeds of dance held on January 6th, per Dr. A. F. Hurst)	12	0	0
G. B. Hurst, Esq., K.C., M.P.	10	0	0
Percy B. Ingham, Esq. (per J. McNair, Esq.)	21	0	0
Inglis, Malcolm & Co.	5	5	0
The Worshipful Company of Innholders	21	0	0
"J. E. M."	10	10	0
Mrs. Mark Jackson (per Miss Newth)	5	0	0
T. L. Jackson, Esq., M.B., B.Ch. ...	6	10	0
W. & R. Jacob & Co. (Liverpool), Ltd.	5	5	0
Jacobs & Josephs	5	5	0
Wm. Jeffrey & Co., Ltd.	5	5	0
Mrs. A. W. N. Jenkins	6	6	0
A. J. R. Johnson, Esq. (per W. D. Doherty, Esq., M.S.)	5	5	0
L. Johnson, Esq. (per W. E. Hills, Esq., M.R.C.S., L.R.C.P.	10	10	0
The Worshipful Company of Joiners	5	5	0
Miss Jones (per J. Gaymer Jones, Esq., M.S.)	5	5	0
D. T. Jones, Esq. (per collection) ...	8	5	10
Jordan & Exner	5	5	0
Josolyne & Young (per S. H. Croucher, Esq.)	5	5	0
M. C. Joynt, Esq., M.R.C.S., L.R.C.P.	10	10	0
Stephen Keele, Esq., L.D.S., R.C.S....	20	0	0
W. Keig, Esq. (per R. P. Rowlands, Esq., O.B.E., M.S.)	10	10	0
Kemp, Chatteris, Nichols, Sendell & Co. (per S. H. Croucher, Esq.) ...	5	5	0
Professor C. S. Kenny (per R. B. Hogg, Esq., M.R.C.S.)	5	5	0
Mr. and Mrs. H. B. Kent	21	0	0
Kia-Ora, Ltd.	21	0	0
T. J. R. Kiernan, Esq. (per W. J. Curry, Esq.)	21	0	0
E. Kipps & Co., Ltd.	5	5	0
A. H. B. Kirkman, Esq., F.R.C.S. (per collection)	14	13	0
Dr. R. Lawford Knaggs	5	5	0
R. A. Knight & Co. (per S. H. Croucher, Esq.)	5	5	0
C. Heygate Knowles, Esq., L.D.S., R.C.S.	5	0	0
"L. and C." (per Dr. J. Fawcett) ...	5	0	0
Charles Lamb, Esq. (per J. E. Humphery, Esq.)	20	0	0
Mrs. Landon (per Matron)	5	0	0
London Langley, Esq.	5	0	0
Dr. W. Lansdale	5	5	0
R. B. P. Lansdown, Esq., M.B., B.Ch. (per collection)	13	1	0
Mrs. Latimer	5	0	0
C. H. Laver, Esq., M.R.C.S., L.R.C.P.	5	5	0
J. H. W. Laverick, Esq. (per H. Ashwin, Esq.)	10	0	0
Herbert C. Le Marchant, Esq. (per Dr. C. P. Symonds)	10	0	0
W. H. and H. Le May	10	10	0
The Misses Leader	5	0	0
The Rev. W. R. M. Leake (per Dr. J. Fawcett)	15	0	0
J. L. P. Lebegue & Co., Ltd.... ...	5	5	0
Sir Herbert Leon, Bt.	5	5	0
Sir Arthur Levy (per Dr. A. F. Hurst)	10	10	0
A. D. Lewis, Esq. (per collection) ...	22	5	0
Libby, McNeill & Libby, Ltd.	5	5	0
C. D. Liddell, Esq. (per T. Halliwell, Esq., M.R.C.S., L.R.C.P.)	5	5	0
Mr. and Mrs. Liddle (per S. H. Croucher, Esq.)	6	6	0
James Lindsay & Sons, Ltd. (per Miss Jefferies)	5	0	0
Lines, Bros., Ltd.	5	0	0
J. D. Link & Son, Ltd.	5	5	0
C. E. Lloyd, Esq., L.D.S., R.C.S. ...	5	0	0
W. J. Lloyd, Esq.	5	0	0
Lloyd's Collection (per J. McNair, Esq., balance of collection)	201	16	0
C. H. Lomax, Esq.	10	0	0
London Butchers Hide and Skin Co., Ltd.	10	10	0
London Spinning Co., Ltd.	5	0	0
H. O. Long, Esq.	21	0	0
A. Longbotham, Esq. (per H. Ashwin, Esq.)	5	0	0
Longmans, Green & Co.	10	10	0
M. G. Louisson, Esq., M.B. (per Dr. F. G. Gibson)	5	0	0

(Remainder of List, from L to Z, will appear in next issue.)

Sport.

Athletic Sports.

Relay Races v. Brighton College.

ON Saturday, May 2nd, we began training, and it is characteristic of our Secretary to choose Brighton to do most of our rough work. Mr. W. T. Marsh, sometime a Cambridge three-miler and cross-country runner and now an active member of the South London Harriers, greeted us at Brighton Station and expressed the hope that the Guy's Hospital Musical Society would give a very successful performance of "Iolanthe" in the near future. As he had no inside information we must conclude that our particular train was especially constructed to conduct our whispered taunts to Strephon's amorous words which were destined for the one other occupant of our carriage.

We reached Brighton School to find a very pleasant surprise. Mr. Thompson and his sons surrounded by spectators, masters and boys made us feel that a few of the cheers we should hear would come from a man who really did want to see us carry off the victory. And he was not disappointed. Seldom has there been on that ground such an exhibition of good high jumping as W. Hertzog gave. Never before have the School seen an athlete attempt to clear the cross-bar as it rests on the top of the posts, and it was by the merest piece of bad luck that he failed to clear 6 feet, but with his style of jumping he should go far.

In the 4×880 yards relay we had an easy

THE CORONATION SCURRY STAKES.
(i.) The Start of a Heat.

win. In the 4×440 yards relay D. B. Smallshaw ran a good race and J. H. Richmond threw his weight about with well-timed efforts at the corners, giving C. W. Harrison an easy finish.

Brighton, was seen at his best. He is a natural runner with plenty of pluck and should do well when he has had more experience.

In the 4×220 yards relay our team was seen to its advantage. G. K. Lacey quickly estab-

THE CORONATION SCURRY STAKES.
(ii.) The Final. C. L. Steyn wins by a short nostril.

W. Hertzog and C. L. Steyn both jumped well in the Long Jump, where the aggregate of our three jumps proved better than that of the School.

In the 4×1 mile M. E. M. Jago and G. W. Rake ran well when we were again victorious. It was in this race that F. Tchitcherine, of

lished a substantial lead which C. W. Harrison maintained. C. G. Townsend increased this slightly, and C. L. Steyn raced home with an easy stride.

In the 4×120 yards hurdles relay we found a new performer in S. D. McClean who has a good style over the hurdles and is fast between them.

After the meeting was over we were given a royal banquet when all of us heartily agreed with the Headmaster who proposed that we should come down again next year.

We then went our various routes: some returned to Town; some returned to Brighton; some went over the School, visited the tuckshop and baths and listened to an interesting lecture on Mount Everest by Mr. Odell, a Brighton master who reached the highest point on that mountain, which we hope will soon lie under the foot of an Englishman, even if he does knock over the top two feet and cause the geography books to be rewritten, which has apparently already given Mr. Punch many a restless night.

The following represented the Hospital in these relays against Brighton :—

C. L. Steyn, C. W. Harrison, G. K. Lacey, W. Hertzog, W. Leslie, A. S. Gough, L. K. Wills, M. E. M. Jago, G. W. Rake, D. B. Smallshaw, J. H. Richmond, C. G. Townsend, R. S. Thomas, S. D. McClean, E. J. Dalling, T. M. Calhaem.

C. E. Gallagher, the Hon. Treasurer, acted as team manager.

Guy's Hospital Athletic Sports.

THESE Sports were held on Thursday, May 21st, at the Clubs' Union Ground at Honor Oak Park.

THE HALF-MILE HANDICAP.
L. K. Wills (2) wins from A. S. Gough (5) by inches.

Owing to the heats being decided on the previous Tuesday and some events being held simultaneously, the heavy programme was concluded shortly after 6 p.m., when Lady Fripp very kindly presented the prizes. The weather was once again favourable to us and the standard of performances was fairly high.

C. L. Steyn did not this year compete in

his usual four events, but distinguished himself by winning the Donkey Derby, although he narrowly escaped disqualification for boring L. G. Housden in the final straight. C. W. Harrison ran himself to a standstill and carried off the Clement Lucas Cup with a fine aggregate of points. M. E. M. Jago ran an excellent mile, and it was very bad luck that he missed the record by 1-5th sec. S. D. McClean ran well in the 120 yards Hurdles, but was beaten by Harrison in the record time of 16 4-5th secs. The finishes of the half-mile and 100 yards Handicaps added to the interest of the meeting.

Although Athletic Sports forms the basis of all games it cannot be said that there is the same enthusiasm experienced about them as about a game of Rugby, and so the thanks of the Athletic Club Committee are due to all who were present.

Results of the Sports.

Scratch Events.

100 *Yards.*—1, C. L. Steyn; 2, C. W. Harrison; 3, W. Hertzog. Won by 1 yard; inches. Time: 10 2-5 secs.

220 *Yards.*—1, C. W. Harrison; 2, G. K. Lacey; 3, W. Hertzog. Won by 2½ yards. Time: 23 secs.

440*Yards.*—1, C. W. Harrison; 2, D. B. Smallshaw; 3, L. K. Wills. Won by 8 yards; 12 yards. Time: 54 3-5 secs.

880*Yards.*—1, A. S. Gough; 2, C. W. Harrison; 3, L. K. Wills. Won by 7 yards; 1 yard. Time: 2 mins. 10 1-5 secs.

1 *Mile.*—1, M. E. M. Jago; 2, L. K. Wills. Time: 4 mins. 46 3-5 secs.

3 *Miles.*—1, M. E. M. Jago; 2, J. H. Chitty; 3, F. F. Kennedy. Won by 300 yards. Time: 16 mins. 30 2-5 secs.

120 *Yards Hurdles.*—1, C. W. Harrison; 2, S. D. McClean; 3, W. Leslie. Won by 3 yards; 2 yards. Time: 16 4-5 secs. (Previous Record 17 secs.)

Putting the Weight.—1, E. W. Hutchinson; 2, W. Hertzog; 3, A. J. Lewis. Distance: 36 ft. 3 in.

Throwing the Hammer.—1, E. W. Hutchinson; 2, W. Hertzog; 3, C. E. Brittan. Distance: 84 ft. 5½ ins.

High Jump.—1, W. Hertzog; 2, C. L. Steyn and W. Leslie. Height: 5 ft. 4½ ins.; 5 ft. 3½ ins.

Long Jump.—1, C. L. Steyn; 2, W. Hertzog; 3, R. C. Brock. Distance: 21 ft. 7½ins.; 21 ft. 5½ ins.

Tug-of-War.—Dentals 2, Medicals 0.

Relay (880, 440, 220, 220).—1, Medicals (A. S. Gough, D. B. Smallshaw, L. K. Wills, W. Hertzog); 2, Dentals (C. W. Harrison, J. Becker, G. K. Lacey, C. L. Steyn). Won easily. Time: 4 mins. 11 2-5 secs.

Handicap Events.

100 *Yards.*—1, C. W. Harrison (4½ yards); 2, W. Hertzog (5 yards); 3, R. S. Thomas (8 yards). Won by inches; 1½ yards. Time 10 2-5 secs.

150 *Yards.*—1, D. B. Smallshaw (14 yards); 2, R. S. Thomas (12 yards); 3, G. K. Lacey (5 yards). Time: 15 secs.

220 *Yards.*—1, D. B. Smallshaw (10 yards); 2, R. S. Thomas (18 yards); 3, J. B. Blaikley (20 yards). Won by 1½ yards; 1½ yards; Time, 22 1-5 secs.

440 *Yards.*—D. B. Smallshaw (15 yards); 2, F. Allott (16 yards); 3, J. B. Blaikley (28 yards). Won by 4 yards. Time: 53 2-5 secs.

880 *Yards.*—1, L. K. Wills (scratch); 2, A. S. Gough (scratch); 3, F. Allott (30 yards). Won by inches; 1 ft. Time: 2 mins. 5 2-5 secs.

1 *Mile.*—1, J. H. Chitty (250 yards); 2, M. E. M. Jago (scratch). Won by 100 yards. Time: 4 mins. 32 2-5 secs.

3 *Miles.*—1, F. F. Kennedy (3 mins.), Time: 14 mins. 44 2-5 secs.; 2, J. H. Chitty (2 mins.), Time: 15 mins. 29 3-5 secs.; 3, M. E. M. Jago (scratch), Time: 16 mins. 30 2-5 secs.

120 *Yards Hurdles.*—1, S. D. McClean (owes 5 yards); C. W. Harrison (owes 3 yards),0. Time: 18 2-5 secs.

Throwing the Javelin.—1, G. A. Martyn (scratch), Distance: 119 ft. 5 ins.; 2, E. W. Hutchinson (10 ft.), Distance: 114 ft. 5½ ins.

Throwing the Discus.—1, E. W. Hutchinson (scratch), Distance: 103 ft. 2¾ ins.; 2, W. Hertzog (6 ft.), Distance: 101 ft. 0¾ ins.; 3. C. E. Kurtz (25 ft), Distance: 91 ft. 4¾ ins.

Clement-Lucas Challenge Cup.—

1. C. W. Harrison, 21 points.
2. W. Hertzog, 16 points.
3. C. L. Steyn (holder), 12 points.
4. E. W. Hutchinson, 10 points.
4. M. E. M. Jago, 10 points.

London University Sports.

IN the London University Sports held on Wednesday, May 27th, we were successful in regaining the Rosebery Cup, and also carried off the newly-presented Thierry Cup. E. W. Hutchinson won the Lady Busk Cup for individual honours. Full details of these sports will be published in the next number of the GAZETTE.

Inter-Hospital Sports.

THESE will take place on Tuesday, June 9th. Heats and the 3-miles final will take place on Friday, June 5th.

As we want to make a determined effort to retain the Sports Shield, we shall rely not only upon steady training of members of the team, but also on adequate support from non-competitors who are earnestly requested to turn out in force and cheer on their team.

L. KENNETH WILLS,
Hon. Sec.

Cricket.

1st XI. v. Hampstead.

Played at Hampstead, and resulted in a draw.

Guy's.

E. J. Pye-Smith, c Farmiloe b Gray	34
L. S. Williams, b Hickson	71
A. G. Ensor, c Fraser b Hickson	45
L. Catchpole, b Peters	3
V. Preen, b Peters	0
G. Fellowes-Smith, c Fraser b Peters	19
A. H. Curtis, b Hickson	6
J. G. Van Schalkwijk, l.b.w. b Peters	13
J. Durr, c Gray b Peters	10
G. T. Clarke, not out	1
L. W. Houghton, b Peters	0
Extras	14
Total	216

Hampstead.—Total 131 for 9 wickets.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	12	2	35	2
J. Durr	17	6	40	4
G. T. Clarke	6	1	16	2
L. W. Houghton	5	0	16	0
G. Fellowes-Smith	2	0	17	0

1st XI. v. Three Counties Asylum.

Played at Arlesey, and resulted in a win for Guy's by 55 runs.

Guy's.

E. J. Pye-Smith, l.b.w. b Albon	28
L. S. Williams, c Goddard b Buckley	20
J. G. Van Schalkwijk, c Axam b Albon	16
G. Fellowes-Smith, c Barnett b Goddard	76
G. T. Clarke, b Buckley	1
A. H. Curtis, b Goddard	32
L. Catchpole, c Page b Goddard	18
V. Preen, b Buckley	10
W. H. G. North, run out	6
L. W. Houghton, not out	2
D. S. Thomas, c Axam b Buckley	5
Extras	12
Total	226

Three Counties Asylum.—Total 171.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	22	4	61	6
W. H. G. North	14	3	37	1
L. W. Houghton	8	3	12	0
G. T. Clarke	7	1	21	1
G. Fellowes-Smith	11	5	16	1
L. S. Williams	6	0	25	1

Guy's v. Royal Dental Hospital.

Royal Dental.

1st Innings.

L. G. Baker, c Fellowes-Smith b North	35
E. B. S. Redman, b Van Schalkwijk	6
R. G. Woodward, run out	5
G. Quinn, b Van Schalkwijk	8
H. E. Glover, b Van Schalkwijk	9
K. Webster, b North	5
W. Kilpatrick, b Van Schalkwijk	2
A. Geere, c Houghton b Van Schalkwijk	1
E. Butler, b Van Schalkwijk	25
R. Fairney, c Trick b Clarke	4
I. Bishko, not out	0
Extras	8
Total	108

2nd Innings.

L. G. Baker, b Van Schalkwijk	2
E. B. S. Redman, b Houghton	23
R. G. Woodward, l.b.w. b Houghton	1
G. Quinn, b North	27
H. E. Glover, b Clarke	0
K. Webster, not out	36
W. Kilpatrick, c Williams b Fellowes-Smith	0
A. Geere, c Van Schalkwijk b Williams	5
E. Butler, b Houghton	4
R. Fairney, c Ensor b Houghton	17
I. Bishko, b Fellowes-Smith	0
Extras	7
Total	122

Bowling Analysis.
1st Innings.

	o.	m.	r.	w.
J. G. Van Schalkwijk	19·1	4	52	6
W. H. G. North	17	3	41	2
G. T. Clarke	2	0	7	1

Bowling Analysis.
2nd Innings.

	o.	m.	r.	w.
J. G. Van Schalkwijk	6	0	32	1
W. H. G. North	6	0	14	1
G. T. Clarke	6	1	28	1
L. W. Houghton	8	1	19	4
G. Fellowes-Smith	4	1	14	2
L. S. Williams	1	0	8	1

Guy's.

1st Innings.

L. S. Williams, b Webster	0
A. G. Ensor, b Baker	5
L. Catchpole, c Woodward b Quinn	82
J. G. Van Schalkwijk, b Baker	9
G. Fellowes-Smith, b Webster	44
A. H. Curtis, c Glover b Baker	32
G. T. Clarke, c Redman b Webster	11
V. Preen, b Webster	0
S. R. Trick, b Webster	0
W. H. G. North, c Butler b Webster	14
L. W. Houghton, not out	4
Extras	8
Total	209

2nd Innings.

L. S. Williams, not out	5
A. G. Ensor, not out...	10
L. W. Houghton, c Redman b Webster	4
Extras	3
Total (for 1 wicket)	22

2nd XI. Results.

v. Battersea Polytechnic, at Merton, on Saturday, May 23rd.

Battersea Polytechnic, 154 (A. M. Calder, 5 for 39).

Guy's, 122 (W. H. Dowell, 55).

Match lost by 32 runs.

v. Cyphers, at New Beckenham, on Saturday, May 30th.

Cyphers, 182 (E. H. Bellian, 48 not out); (A. D. J. Lewis, 4 for 26).

Guy's, 146 (W. H. Myburg, 62 not out; D. M. Calder, 34).

J. Wardle performed the "hat trick."

v. Shirley, at Shirley, on Monday, June 1st.

Shirley, 1st Innings, 103 (W. H. Dowell, 7 for 41).

Shirley, 2nd Innings, 59 (D. M. Calder, 4 for 18; W. H. Dowell, 4 for 34).

Guy's, 1st Innings, 63 (E. Britstone, 17; W. H. Dowell, 16).

Guy's, 2nd Innings, 177 for 8 wickets (D. M. Calder, 55 not out; W. H. Dowell, 28; G. A. Martyn, 24; —. Plummer, 26 not out).

Guy's won by 4 wickets.

Inter-Hospital Boat Races.

THE Inter-Hospital Boat Races were rowed at Putney on Friday, May 22nd. Guy's won both the Eights and the Fours. This result was particularly satisfactory to the eight after the farcical circumstances of their last race in the University of London Allom Eights. It was also most satisfactory to find such a keen interest taken in Hospital Rowing. Last year the race had to be scratched as Bart.'s were unable to raise a crew, but this year both hospitals entered strong crews for both events. The training was much more seriously undertaken than in previous years and the standard of rowing attained consequently higher. The senior event was rowed for the first time in "light ships."

Mr. F. L. Playford of the London Rowing Club umpired, and Mr. Paton of the London Rowing Club acted as distance judge.

In the absence of the usual snowstorm, which has been a feature of previous hospital boat-races, there was a larger crowd of supporters than ever before. Both hospitals were well represented and several members of the Staff followed the races in launches. The s.s. *Gaiety* with a full complement of students on board added a touch of importance to the proceedings and, although at one time she seemed likely to impede the eights by lying broadside on across the river, followed both races with much spirit, finishing several lengths behind Bart.'s in each event.

After the races Mrs. Steward kindly presented the Cups, and Mr. Davies-Colley, President of the Guy's Hospital Boat Club congratulated both Hospitals on being able to produce such splendid crews despite the difficulties of training and the exigencies of Hospital work.

Guy's thoroughly deserved their success. The eight had kept more or less together since the Allom Eights in March and for the three weeks preceding the race had been out every night under the coaching of Mr. Hylton Cleaver. During the last ten days the improvement was remarkable and they began to get well together and show the makings of a really first-class crew.

The four had also trained hard and considering that they had been in their light boat less than a week and three of them had never raced on sliders before, they are to be congratulated on the very successful effort they made.

The Races.

The fours were rowed from the Mile Post to the University Stone. Bart.'s had the Surrey Station, Guy's Middlesex. Bart.'s got well away at the start, Guy's being left quite three-quarters of a length behind. The water was bad and there was a strong wind which did not help an inexperienced crew, but Guy's, managing to sit their boat surprisingly well, were holding their own and Bart.'s were unable to increase their lead. Grove kept the stroke long and steady and Guy's gradually went up. Opposite the Club the boats were level, and after a hard struggle Guy's reached the finish a quarter of a length ahead. Grove stroked excellently. He kept the stroke long and steady, giving his crew plenty of time to get their work in together. Crew :—

Bow. D. Ettles, 10st. 12lb.
2. B. A. Moss, 11st. 4lb.
3. J. R. F. Popplewell, 11st. 10lb.
Str. W. S. Grove, 9st. 3lb.
Cox. J. C. Wharton, 9st. 9lb.

The Eights were rowed from Hammersmith Bridge to the University Stone. Bart.'s had the Middlesex station, Guy's Surrey. Guy's made an excellent start and quickly established a lead of half a length. At Harrod's Guy's sprinted and drew clear. The water conditions were very bad, and both boats shipped a considerable amount. Grove steered an exceptionally good course. He kept well into the Surrey shore thereby avoiding the worst of the water and wind. At the Mile Post Guy's were leading by three lengths and going easily. Bart.'s, keeping up a much faster rate of striking were unable to reduce the lead and at no time, after the first minute, looked dangerous. At Beverley Brook, Guy's, although nearly half full of water, were gradually working up the stroke and went away to win by $4\frac{1}{4}$ lengths.

The whole crew rowed on the top of their form. What they lacked in polish they made up for in shoving really hard with plenty of swing and leg drive. They were well together and kept the stroke long, sitting their boat exceptionally well in water conditions that were as bad as they could be. At any time, had they been pushed, they could have increased their lead. Bart.'s, during training, looked dangerous opponents and had plenty of good material. During the race, however, they never seemed to get really together and, although keeping up a fast rate of striking and continually spurting, they never developed length and were quite unable to reduce Guy's lead. Huddy's stroking was again worthy of the highest praises. He was well backed up by Clayton-Jones at 7 and Miller at 6, while Keele at 5 rendered great service. He was the most experienced one in the boat and did much towards keeping the stroke long and steadying down the bow four.

Our greatest thanks are due to Mr. Hylton Cleaver of the London Rowing Club, who has now coached the eight for three years. Under his coaching the eight has won every race and heat it has rowed in and our success has been due to his untiring efforts.

It has been decided to enter a crew for the Junior Senior Eights at Marlow on June 20th. As this will be the first time a hospital eight has appeared at any up-river regatta, and will meet crews entered for Henley, it is hoped that the Hospital will give us its wholehearted support. Crew:—

Bow. E. T. Clifton, 10st. 9lb.
2. C. G. Townsend, 10st. 13lb.
3. R. F. Pritchard, 10st. 10lb.
4. J. H. Richmond, 13st. 11lb.
5. K. S. Keele, 13st. 4lb.
6. W. H. Miller, 12st. 4lb.
7. E. Clayton-Jones, 11st. 12lb.
Str. E. C. Huddy, 11st. 3lb.
Cox. W. S. Grove, 9st. 3lb.

Guy's Hospital Rifle Association.

SHOOTING for the Armitage (Inter-Hospital) Shield will take place on the four Wednesdays in June at Bisley. On the 24th June there will also be the Inter-Hospital and Guy's Prize Meeting. The competitions on that day will comprise deliberate shooting at 200, 500 and 600 yards, and a rapid at 500 yards. Prizes are awarded to individuals at each range, and for the grand aggregate. There will be also handicap and novices prizes confined to Guy's. Entrance fee 6d. for each range.

It would be useful if intending competitors would let me know some days before the meeting.

We are always pleased to welcome any member of the Clubs' Union on Wednesday afternoons. Vouchers are left in the Colonnade, the return fare is 3s., and rifles and a reasonable amount of ammunition are provided.

HAROLD E. HARDING,
Hon. Sec.

Lawn Tennis.

THE 1st VI. opened the season with a match with Bart.'s at Honor Oak on Saturday, May 2nd.

The result—5 matches to 3 in our favour—brightens our Cup Tie prospects.

Team.—E. E. Neser, H. Lewis-Philipps (Capt.), V. G. Boyle, V. V. Hookai, H. Trafford, F. Ratnager.

1st VI. v. Stock Exchange.

THE 1st VI. v. Stock Exchange, Sunday, May 3rd. This match was unfinished as rain set in for the afternoon.

The match arranged with Old Citizens was scratched as the grass courts were unfit for play on May 9th.

Surrey County Competition (Men's Junior)

THE 1st VI. had an easy win in the 1st round of this competition on Tuesday, May 12th, at Honor Oak. Our opponents were Kenley L.T.C. Result, 9 matches to nil.

Team.—E. E. Neser, H. Lewis-Philipps (Capt.), A. H. Musgrove, V. V. Hookai, H. Trafford, F. Ratnager.

THE 2nd VI. visited the Woodborough L.T.C. at Putney on Sunday, May 3rd. Unfortunately rain terminated what promised to be a thoroughly enjoyable and closely contested match.

ON May 6th D. Lurie brought down a hot side from Lincoln College, Oxford, to play our 2nd VI.

Rain had fallen during the morning and the grass courts were out of action; however, on the arrival of our unexpected visitors a team was hastily reformed and considerably strengthened by bringing in Lewis-Philipps and Musgrove from the 1st VI.

We played on the hard courts and lost by 5 matches to 1. Lurie returned to Oxford with his usual beaming smile intact. His team included three Americans, one Australian and one South African. We await the return match.

Team.—H. Lewis-Philipps (Capt.), A. H. Musgrove, L. Parker Tupling, D. A. Newbery, R. L. Peregrine, A. H. Russell.

At the Anatomy Exam.

A Lament from the Radiography School.

I'll tell thee everything I can,
  But sad I am to state,
That of these muscles, bones and nerves,
  I've nothing to relate.
I know I *have* them all intact,
  Somewhere inside of me,
I'm quite content to leave them there,
  But no! that cannot be!
Their points and jabs must see the light,
  Their "actions" may not lie
Forgotten in unthankfulness
  And without praises die.
I know I have of vertebræ
  Not one, but thirty-three;
Exclusively designed, each one,
  To fuddle you and me.
There's atlas and there's axis,
  But when you think you know
The dorsals and cervicals,
  You still must further go.
Your study of the lumbar spine
  On no account must fail;
Nor yet of that which represents
  Our dwindling human tail!
Oh sacrum! how d'ye ossify?
  Oh coccyx! how d'ye do?
I wish, when God made all things good
  He'd just forgotten you!
Ye os innominatum!
  You're bad enough to learn,
When stripped of all your trimmings,
  But now my brain doth turn,
When all your muscles are laid bare.
  Articulations too!
Your borders and your surfaces
  And angles make me blue.
How Henry Gray, of mem'ry blest,
  Within his grave must turn!
But what a heritage of woe
  He's left for us to learn;
Yet though we may not here escape
  The lecturer's lashing tongue,
At least our bones will never lie
  "Unhonoured and unsung."

D. M. W.

Hospital Information, etc.

Pass List.

Society of Apothecaries of London.

May, 1925.

Medicine.

J. Herbert. *J. Maingard.

Forensic Medicine.

*J. Maingard.

*Has now completed the examination.

Royal College of Surgeons.

L.D.S.

May, 1925.

Part I.

Mechanical Dentistry.

E. W. Hutchinson.
A. Isaacs.
R. A. Bogg.
M. G. Berry.
V. G. Boyle.
O. L. L. Campeon.
H. E. S. Collingwood.
R. L. Dale.
H. Falk.
E. Fulford.
H. A. Ginn.
W. W. Levy.
C. J. O'Donoghue.
M. J. O'Donnell.
L. G. W. Papenfus.
V. R. Preen.
S. Sharp.
R. T. Towne.
H. F. J. Willis.
W. A. Wilson.

Part II.

Dental Metallurgy.

E. C. Humphreys.
J. G. T. Edmunds.
E. C. Irish.
C. L. Stevens.
R. Symmons.

Part III. (a)

Anatomy and Physiology.

H. Brown.
C. E. Pedley.
S. K. Arnold.
C. E. Brittan.
I. E. Brown.
D. J. Bull.
F. H. Channon.
R. G. Daplyn.
R. L. Duchesne.
E. M. Greenwood.
J. H. F. Hilton.
W. Holgate.
L. H. Ide.
L. J. Martin.
L. G. W. Papenfus.
G. R. Pidgeon.
J. J. Sanders.
R. W. Waldie.
J. E. Willett.

Part III. (b).

Dental Anatomy Physiology.

H. Brown.
J. A. Becker.
M. Bewlay.
E. J. Buxton.
L. Catchpole.
J. W. S. Coe.
R. Cutler.
A. E. Farara.
W. G. Fenn.
W. F. Fuller.
D. Gure.
K. T. Hops.
W. Hops.
A. S. Moore.
T. S. Oliver.
V. G. Penberthy.
F. Popper.
C. Rumball.
M. A. Rushton.
C. Skinner.
N. Van Z. Smit.
J. Stazunsky.
J. W. J. Visser.
M. Wolman.
E. N. Screech.

Change of Address.

E. R. Webb, M.D., Glen Lake Sanatorium, Minneapolis, Minnesota, U.S.A.

J. F. H. Stallman, 38, Brunswick Rd., Gloucester.

Papers by Guy's Men.

Arthur F. Hurst, M.D., F.R.C.P. X-Rays in the Diagnosis of Organic Diseases of the Colon.—*Brit. Med. Journ.*, 1925, i., p. 955.

Allen C. Hancock, M.C., M.R.C.S., D.P.M. Parkinsonism, together with the "Apache Type" in Encephalitic Lethargica.—*Ibid.*, i., p. 966.

J. W. H. Eyre, M.S., F.R.S. Colloidal Kaolin. The Absorption of Toxin by Kaolin.—*Lancet*, 1925, i., p. 1123.

F. E. Shipway, M.D. Acetylene, Ethylene, Propylene.—*Ibid.*, p. 1126.

W. M. Mollison, M.Ch. The Interdependence of Throat and Ear and Dental Surgeons.—*Brit. Med. Journ.*, 1925, xlvi., p. 644.

Appointments.

J. F. H. Stallman, M.B., B.S., F.R.C.S. Appointed Honorary Assistant Surgeon, Gloucestershire Royal Infirmary and Eye Institution.

Abraham D. Erulkar, M.D. (Lond.). Lecturer in Medicine, Sunderdas Gordhandas Medical College, Bombay, and Hon. Physician, King Edward Memorial Hospital, Bombay.

Publications Received.

The Archives of Medical Hydrology, The Dragon, The Isis, The Medical Journal of South Africa, The King's College Hospital Gazette, The Medical Review, The Nursing Times, The Irish Journal of Medical Science, The Serpent, The Cambridge Gownsman, The Journal of the Architectural Association, The Broad Way, The Hospital Gazette, The Middlesex Hospital Journal.

Guy's Hospital Gazette.

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ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

"GUY'S HOSPITAL is *not* falling down." This gratifying news was broadcast last Tuesday on the occasion of the collection for the Hospital at the London Bridge Stations. Posters, bearing these words, were liberally displayed in the stations and the railway approach and brought comfort to large numbers of the overheated public. It was one of the few cheerful announcements that have appeared on the posters of late. The general public has now become so used to the word "tragedy" on the news-boys' aprons, that its absence attracts its attention very readily. It has begun to expect and almost to claim a right to its daily tragedy and reads quite dispassionately such headlines as "Boating fatality—three drowned." It has also to a certain degree lost interest in the falling down epidemic, except in so far as its very junior branch still enjoys the performance of ringing a ring of roses. Too many public edifices are now falling down, without a corresponding fall in the price of building materials, for seasoned public interest to maintain the high level of the young. Childish voices in the play-ground may still be heard singing, "London Bridge is falling down, build it up with sticks and stone," but elderly voices in the Strand are never heard to sing "Waterloo Bridge is falling down, build it up with iron girders." Excellent songs, too, could be sung of the falling down of St. Paul's Cathedral, but nobody seems to try. Falling down is becoming too common and, while we sympathise deeply with the Middlesex Hospital and acknowledge that it is in the height of fashion we cannot commend it for its originality. To attract attention it is necessary to be startling and such certainly was the news that Guy's Hospital was standing up. The seasoned and season-ticketed public was even a little dazed by the information. "Guy's Hospital is *not* falling down," it whispered, and dropped its money into the collecting boxes. It seemed to think that something must be done about it and there was nothing to do but pay. We congratulate the publicity agent, whose mind conceived this great thought of the Hospital's stability, which thought was the means of raising £464 5s. 6d. for the Bicentenary Fund.

THE announcement of the death of the Rt. Rev. Hubert M. Burge, D.D., Bishop of Oxford, came as a great shock to those who had the privilege so recently of listening to his sermon at the Bicentenary Commemoration Service. The late Bishop was Chaplain at Guy's from 1911 to 1919, when Bishop of Southwark, and was a Governor of the Hospital from 1918 up to the time of his death. As Chaplain he never regarded his position as that of a mere figure-head, but was frequently seen in the wards, in addition to confirming and preaching in the Chapel as Bishop of the Diocese. By his death, the Hospital loses a good and loyal

friend and the Church a wise and influential guide. A Service in his memory was held in St. Saviour's Cathedral on Monday last.

In response to requests from old Guy's men we publish the times and days of attendance at the Hospital of the members of the Staff. We have been asked to call particular attention to the alteration in the Gynæcological Department. In this department, out-patients will in future be seen by Mr. Chapple on Mondays, by Mr. McNair on Wednesdays, and by Mr. Cook on Fridays.

On Monday, June 29th, H.R.H. the Duke of York will visit the Hospital and will distribute the Prizes to successful students. This visit will be the occasion of a Garden Party, when the Laboratories, Museums, College, the Henriette Raphael Nurses' Home and Wards will be open to inspection. A further announcement appears on page 334.

On page 352, will be found a notice of the "*Gazette*" *Boat Club Fund*, which has been opened to enable Guy's to send its very successful crew to Marlow for the Regatta. Confident in the good-will and generosity of Guy's men, the eight has been entered and will row to-day in the Marlow Eights Challenge Cup, the first heat against Jesus College, Cambridge, and the Twickenham Rowing Club being timed for 12.30. We wish them all success and hope that all those, who can manage to do so, will journey to Marlow to-day to cheer on our crew and to congratulate them afterwards at their headquarters in the Greyhound Hotel, Marlow. There are good trains down and the return fare is about four shillings. Should the crew win their heat, they will row again at 4.25 and, we hope, yet again in the Final at 7.15.

We offer our heartiest congratulations to St. Bartholomew's Hospital on winning the Inter-Hospital Athletic Shield for the next year. A. S. Gough was unable, through examinations, to reach the Sports Ground in time for his race and C. L. Steyn had the misfortune to strain a muscle and was obliged to give way to Griffiths in the 100 yards. These accidents, added to the fine running of H. B. Stallard, who won the half mile, mile and three miles, gave Bart.'s a good victory of over twenty points and they certainly deserved it. The Honorary Secretary of the Guy's Athletic Club writes to say that he is sure that they will keep the Shield nice and clean and hand it back again next year.

On Saturday, July 11th, the City and Hospitals' Charity Athletic Contest between the United Banks, the Insurance Offices, the Stock Exchange and the United Hospitals teams, will be held at the Crystal Palace at three o'clock. This is one of the most important Hospital Athletic fixtures of the year, and the Hospitals team stands an excellent chance of winning the Challenge Cup for the first time. Tickets, including admission to the covered stand, may be obtained from the Athletic Honorary Secretary in the College at 1s. 6d. each and, as the proceeds of this meeting are divided among the Hospitals of the United Hospitals Athletic Club, it is hoped that a large number will be sold.

Obituary.

We regret to record the death, which occurred on Wednesday, June 3rd, at Prior, Eddington, Herne, Canterbury, of Dr. Herbert Hawksworth, formerly of Park Lane, Welshpool. Dr. Hawksworth, who was 68 years of age, had been more or less an invalid for some years. He went to Welshpool in 1884, and carried on a large and highly successful practice in the town till 1912, when he retired and removed South.

He was educated at King's School, Canterbury and Guy's Hospital. He held the degrees of M.R.C.S. and L.R.C.P. and was held in high esteem by his colleagues.

Dr. Hawksworth was a member of the Welshpool Golf Club and a very keen gardener. He was an expert rose grower and had won many prizes at leading shows, and had introduced a number of new varieties, one of which was known as the "Herbert Hawksworth." He is survived by his wife, to whom we extend our sincere sympathy.

Cases Illustrating the Surgery of the Thorax.

Clinical Lecture by F. J. STEWARD, M.S., F.R.C.S.

GENTLEMEN, — Since the conquest of sepsis which resulted directly from the work of Lord Lister, there has been a steady advance in many branches of surgery— the surgery of the abdomen, the surgery of the head, the surgery of the nerves, the surgery of the muscles, the bones, the joints, and so on. Not so, however, with regard to thoracic surgery; for until a few years ago progress here was handicapped very severely by what one might describe as the bugbear of pneumothorax. As you know, when one side of the pleura is opened, a pneumothorax results. It was feared that not only would the lung on the side opened collapse, but that the pleura on the other side would be compressed, with the result that the patient would die of asphyxia. No doubt that was, to some extent, true, and no doubt death from pneumothorax did happen from time to time, so that the fear was a very real one.

Some surgeons there were, however, who were bold enough to carry out operations on the chest in spite of the fear of pneumothorax, and many such operations were done. The best known British surgeon who did work of this kind was the late Sir William Macewen, who performed many operation on the chest, and even so far back as 1895 removed the remains of a left lung which had been very largely destroyed by tuberculosis. The patient recovered from the operation, and not only remained well and active for many years, but was able to support himself and his wife and family. I well remember the first occasion on which I accidentally produced a pneumothorax, and it so happens that the operation was done in this very theatre, which was then the principle operating theatre in the Hospital. The operation to which I refer was performed almost exactly 25 years ago. The case was a very interesting one. The patient was a little girl, who was sent to me with an almost hopeless condition, namely, a periosteal sarcoma of the upper end of the humerus. I was anxious to do all I could, so I performed a fore-quarter amputation, removing the upper extremity, with the clavicle and scapula. She recovered well and went to a convalescent home, and thence to her own home. But soon afterwards she came back with a large mass of glands in the neck. The parents were very anxious that I should do something further. I set to work, therefore, perhaps unwisely, to remove the glands, and as I was completing the removal of the mass I tore a large hole in the apex of the pleura. There was an inrush of air, the child became blue and very distressed, and for a few moments I was very anxious about her. However, she soon recovered, so that I was able to complete the operation, and by the time she was taken back to bed, pulse and respiration were normal. She recovered without incident and lived about five months, and did not die after all from her sarcoma, but from a severe attack of measles.

That was the first occasion on which I accidentally caused pneumothorax, and there is no doubt that at that date it seemed to be a very serious matter. Since then I have accidentally caused pneumothorax several times; on two occasions during the removal of a cervical rib, and on one occasion during the excision of the 12th rib in order to facilitate the removal of a large tumour of the kidney.

In the first decade of this century, under the lead of Meyer, Baeuer, and Sauerbruch, the danger of pneumothorax was circumvented by the invention of complicated and expensive apparatus known as pressure chambers. There were two forms of pressure chamber: one known as a negative pressure chamber, the other as a positive pressure chamber. The negative one consisted, in fact, of an air-tight operating theatre. Operating table, surgeon, assistants and nurses were inside this air-tight chamber, and the whole of the patient was also within it with the exception of his head. His head projected through a hole, and the hole was made air-tight round the neck by a pneumatic rubber ring. The air pressure inside the chamber was kept negative, i.e., a few mm. of mercury below atmospheric pressure. The result was that when the pleura was opened, no collapse of the lung took place, because of this negative pressure, the patient breathing air at the ordinary atmospheric pressure outside.

The positive pressure chamber had the reverse arrangement; the patient was operated upon in the ordinary atmosphere, but his head

was in the chamber, so that he received his anæsthetic under positive pressure. Consequently the same result was obtained when the chest was opened.

By these means many operations on the chest were done, and considerable advances were made. But such costly and complicated apparatus was not for everybody. Therefore you may say that advance, at that stage, in thoracic surgery was not general.

Then came the Great War. There were many chest wounds, and the mortality from them in the early stages of the war was very high indeed. After a time it became clear that the men who were wounded in the chest did not, as a rule, die from the pneumothorax, but from the subsequent sepsis. It was in fact realised that the lung must be treated on the same lines as other parts of the body after a wound, namely, by the removal of missiles and portions of clothing which had been carried in, cleaning up the wound generally, cutting away damaged tissue, and closing the wound. Those steps were put into practice boldly in the case of the lung. The chest was freely opened, the lung pulled up, foreign bodies were removed, the wound excised, sutures were put in, and, finally, the chest wall was closed. The results were extraordinarily satisfactory. It was found that, after all, the pneumothorax was not such a very serious thing, and the mortality from wounds of the chest dropped to a very considerable degree.

What of the present time? I think you might say that at the present time thoracic surgery is going full-steam ahead. I do not know, but it may be that in some directions the advance is even a little too quick.

Thoracic surgery has in fact made so many advances in recent years that it would be impossible for me to give you any idea of them in one lecture. So what I propose to do is to show you some cases to illustrate some of those lines of advance.

Case I.—Bronchiectasis.

Here is our first patient, "John." John's story is a long one; so I will give you only the essential points. He has been in the hospital here for over a year, in fact he was admitted on the 20th of February last year. Before that, for a long time, he had been in a Fever hospital. There, tracheotomy was performed for diphtheria, and he was admitted here for the condition which is known as retained tracheotomy tube. He had a stricture of his larynx, which I proceeded to dilate. The dilatation went quite satisfactorily, but we found he was coughing up an enormous quantity of pus, and that this was increasing. He was therefore examined by Dr. Mutch, and X-ray examinations made of his chest. Dr. Mutch came to the conclusion that he was suffering from fibrosis of the lower lobe of the right lung with bronchiectasis, and he did not give a very hopeful prognosis. Here is a print (Fig. 1) of the X-ray photograph, and you can see that the lower part of the right lung is extremely opaque.

Before going further, I must mention one or two points about bronchiectasis. I shall not go into the ætiology, pathological anatomy and all the details of the condition, but will remind you of the essential features.

In the first place, bronchiectasis is a condition of dilatation of the bronchi associated with sepsis. The dilatation may be brought about in several ways. Usually the lung becomes fibrosed, and as the fibrous tissue contracts it tends to pull apart the walls of the bronchi which are already softened by the septic process. If at the same time, the lung is adherent to the chest wall it is clear that the tendency of the bronchi to dilate will be further increased thereby.

We have, then—

1. Dilated bronchi full of pus.
2. Fibrosed lung.
3. Adherent pleura.

Those are the important points to remember from the point of view of surgical treatment. Clearly the indication is to make it possible for the fibrosed lung to contract so completely that the dilated bronchi are occluded. With this object several different forms of surgical treatment have been made use of.

The first is *rib mobilisation*. This is brought about by removing several inches of each end of a number of ribs so that the chest wall can fall in, the lung contract, and the bronchiectatic cavities become occluded. John, as I said, was not doing very well; he was losing ground in many ways, and it was quite clear by the end of last year that either he must go away in the hope of recovery as a result of the change of air, sunshine, etc., or that something drastic must be done. I did not think much of the prospect of benefit from the change of air, neither did Dr. Mutch, I think. I therefore decided upon operation, and on the 13th of January this year I performed the first stage of rib mobilisation. I made a vertical incision between the scapula and the spine

and divided the scapular muscles. Through that incision I removed about two inches of each of six ribs—the 6th, 7th, 8th, 9th, 10th and the 11th—and then closed the wound. He stood the operation well and a fortnight later I removed the anterior ends of the same ribs through this anterior incision (shown on patient).

From the physical point of view the result has clearly been successful. You can plainly see the great difference there is now between the left chest and the right. The ribs which had been mobilised are no longer particularly mobile, but they have fallen in to a very marked extent. And, apart, from that, the boy has made a great deal of improvement in general health; he has grown and he has put on a good deal of weight. Moreover, the amount of pus that he spits up is very much less; the Sister says it is less than half what it was before the operation. Now, although the boy as he sat before you was under a certain amount of excitement, you may have observed that he did not cough once while he was here. Such a thing, I am sure, could not have happened before his operations in January, for he was coughing up pus every few minutes.

Recently the boy has been radiographed again, and I think you can see, on comparing the two sides of the chest, how greatly the ribs have fallen in (*vide* Fig. 2), and that the lower opaque lobe shadow is more localised. The report states that the upper lobe of the right lung shows good expansion, the base of the lung appears to be completely collapsed.

To continue about the surgical treatment of bronchiectasis, the next method that is adopted is called *decostalization,* which simply means removal of the whole rib over the area which is involved in the bronchiectasis. As you may imagine that is a much more severe operation than rib mobilisation. John was very ill when I operated upon him, and I am certain he could not have stood anything more serious than what I did. If, however, the patient is able to stand it, decostalization, I can imagine, is more satisfactory and results in more rapid improvement than rib mobilisation, because it allows the soft parts to fall in more rapidly and more completely and the lung to contract much more quickly.

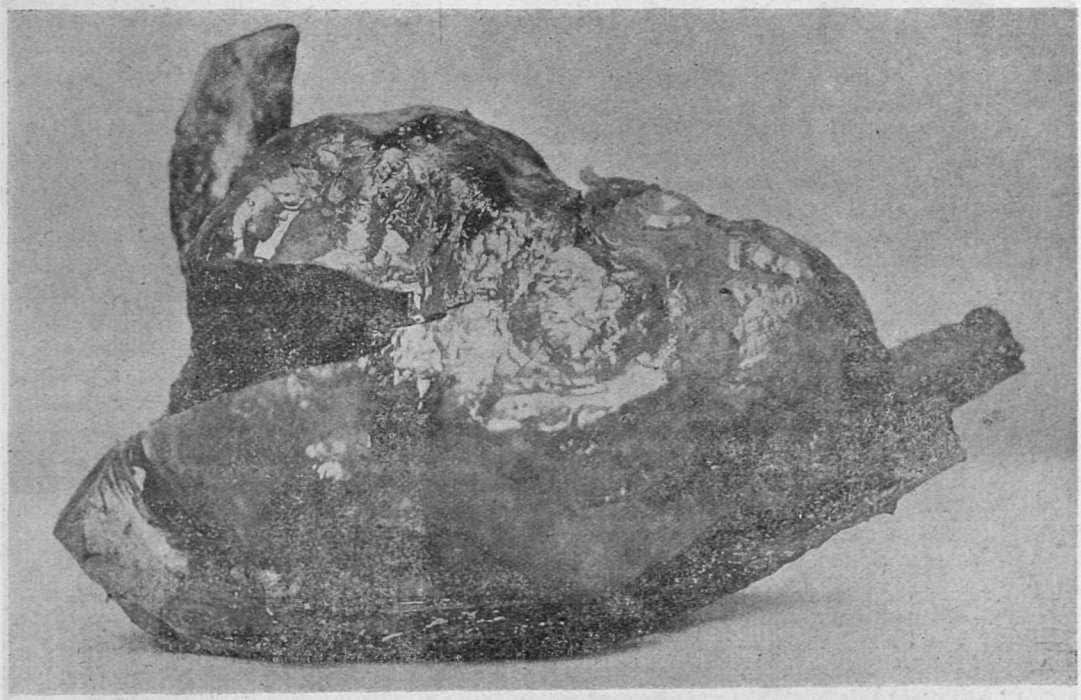

FIG. I

Several other methods of surgical treatment of bronchiectasis have been tried. One is *ligature of the pulmonary artery.* It has been

found, experimentally, that if the artery to a lobe of the lung is ligatured that lobe undergoes an extreme degree of fibrosis. This method of treatment has been tried in a number of cases of bronchiectasis. The operation has resulted in very complete contraction of the affected lobe, but it is only suitable in cases in which the disease involves one lobe only. Ligature of the artery is necessarily associated with mobilisation of the ribs, otherwise the fibrosis will not improve matters. The chief objections to this operation seem to be, in the first place, the great severity and difficulty of the operation, and, in the second, the fact that the fibrosis may not be permanent, for it appears that relapse has taken place after a time in some cases which at first did very well. There have, however, been some very striking results, and one has to bear in mind that the operation is being done for a condition which is otherwise far from hopeful.

Finally, there is partial *pneumectomy*, that is to say, the lobe which is affected by bronchiectasis has been removed completely. The results have not been very satisfactory, and the mortality has been very high—50 per cent. to 70 per cent. My own view is that division or removal of ribs promises well without undue risk being taken, but that ligature of the pulmonary artery and pneumectomy can seldom be justified in view of the great risk.

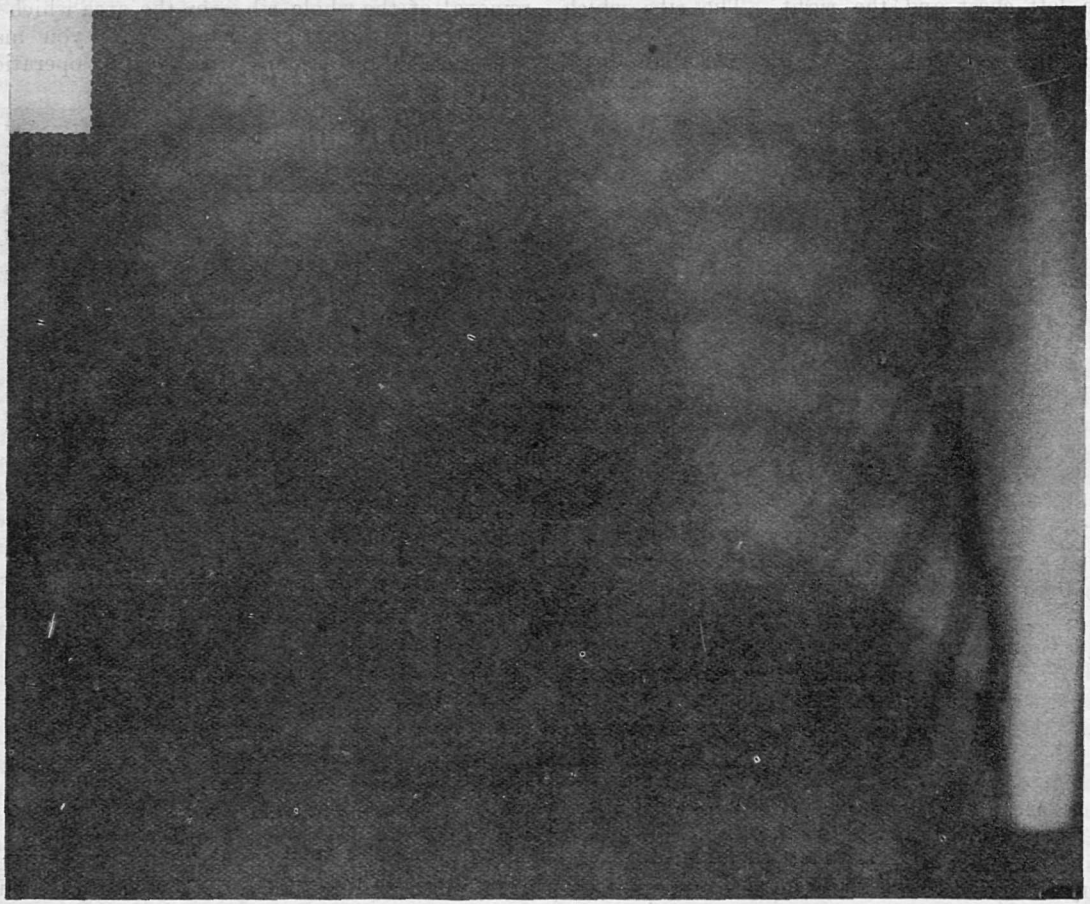

FIG II.

Case II.—Tumour of Chest Wall.

I shall now pass on to the next case. This woman was admitted under my care last year, on June 30th. Three months before she was

admitted, while she was having a bath, she found there was a lump on the right side of the chest, and that it was painful. There was little in the previous history bearing on the subject. When she came in, she was found to have a hard prominence under the breast involving the 4th and 5th ribs. One could lift the breast up and feel the tumour fixed to the chest wall beneath it. The tumour was somewhat tender. A radiographic examination was made, and the report said that there was a tumour, involving the 4th and 5th ribs on the right side, beneath the breast, projecting considerably into the chest. As a matter of fact the plate showed that the part of the tumour within the chest was very much greater than the part which projected on the surface. Before she came under my care she had been referred to Dr. Watt, in the Deep-X-ray Therapy Department, and he had given her a course of treatment.

On July 8th I operated upon this patient and removed the tumour. I made, as you see, an incision below the breast, I turned up the breast off the chest wall, and with it the pectorals, and after that I divided the 4th and 5th ribs close to the sternum, and then 4 or 5 inches further out. It was now clear, that the pleura was adherent to the tumour. Not knowing exactly what the nature of the tumour was, I naturally treated it as if it were malignant, and therefore removed a considerable area of parietal pleura, with the intercostal structures, together with the portions of the 4th and 5th ribs. The pectorals and breast were then replaced and the wound sutured. Of course a pneumothorax was immediately formed when the chest was opened. It was

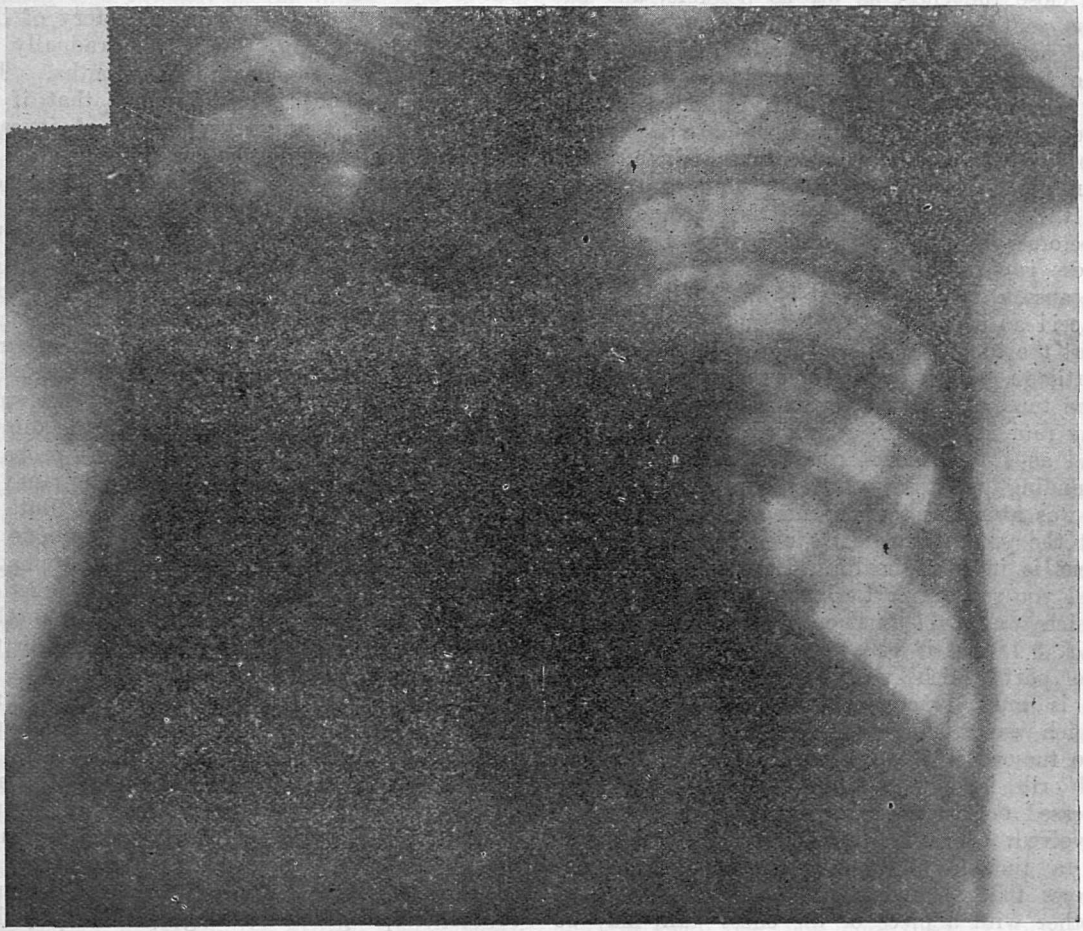

FIG. III.

rather striking how little the patient was upset by this. As a matter of fact one did not expect much disturbance at the time of the operation, because positive pressure was maintained within the lungs by the administration of intra-tracheal ether, which prevented any very sudden collapse of the lung. The question was, however, what would happen afterwards? The wound was sutured carefully in layers in order to close the chest as far as possible, and she was sent back to bed. For a few days she had some degree of distress in breathing, and the lung did not expand well, so that entry of air into it could not be heard. But she soon improved, and as you see she is now in good health. Here you see the incision. You can see a marked depression due to the gap in the chest wall and how it is filled partly by pectorals and partly by breast tissue. But I think there is a good deal of thickening underneath, because although the part is flaccid, it is not as flaccid as it was. The microscopical report says that the tumour consists entirely of degenerated cartilage, with a certain amount of calcification. The tumour is therefore an innocent one, or at any rate, it is not of a seriously malignant type, and as I removed it completely with the surrounding parts, including the pleura, to which it was attached, the prognosis should be good. At the present time it is obvious that the patient is in good health. Here is the tumour, and you see the part which was projecting and which we could feel on examination. (*Vide* Fig. 3.) But if you turn it over and examine the part which was intra-thoracic, you see it is much more extensive than the part which was felt superficially. You see also that the tumour is growing from the 4th rib. The 5th rib is closely attached, but it is only pressed on by the tumour, and is not directly involved. Here then is an instance of removal of a tumour of the chest wall. The case shows that a tumour of considerable size together with a piece of the chest wall, may be removed without undue risk. Numerous tumours have been removed from the thorax, some involving the chest wall, others involving the spine. Not very long ago a fibroma of large size, weighing 19 ozs., was removed by Mr. Dunhill, from the superior mediastinum, on the right side. It was attached to the spine and pressed on the right pleura and various other structures of the mediastinum. It was removed quire successfully, and the pneumothorax which was caused apparently did no harm. Other tumours have been successfully removed from inside the chest such as terratomata, hydatid cysts and on a few occasions even portions of lung have been removed on account of tumours contained therein.

Case III.—Œsophagectomy for carcinoma.

I now pass to another subject, but in this case I regret to say I cannot show you the patient. His age was 51, and he was admitted under my care into Job Ward on the 3rd of January this year. He gave a history of difficulty in swallowing, which had gradually increased during the last four months. The condition was not painful, except that if he took his food too quickly, some of it came back, and afterwards he would get pain in the lower part of the chest and in the abdomen. This history made it fairly clear that he had some form of stricture of the œsophagus. He was in very fair general condition, although, owing to starvation, he had lost some weight. A radiographic examination was made, and the report stated that there was a stricture in the lower part of the œsophagus, immediately above the diaphragm. The stricture showed well on the plate, with the dilated œsophagus above it. It seemed most probable that this stricture was due to malignant disease, because most of them are. But, of course, it was possible that this was one of those rare cases of stricture of the œsophagus due to syphilis. The Wassermann reaction, however, proved to be negative. I had another radiographic examination made, to confirm the first, and also in order, as far as possible, to locate the tumour. The report confirmed the previous one, and said the stricture lay opposite the 8th dorsal vertabra.

Here, then, was a man aged only 51, and in fair general condition, entirely unlike the usual emaciated, broken down, cachetic individual admitted to hospital for gastrostomy, on account of starvation resulting from stricture of the œsophagus. I thought, therefore, that at last I had the case I had been looking for for years, namely, one of epithelioma of the œsophagus which would admit of a fair chance of removal. After the patient was admitted we found he could take a fair amount of fluid food if he took time over it. So we rested him and fed him up as far as we could, getting him into the best possible condition, and 24 days after he came in, namely, on the 27th of January last, with the assistance of Mr. Gaymer Jones, I performed the operation that I am about to describe.

Many operations have been done for cancer of the œsophagus; unfortunately most of them have been failures. Many failures, I am afraid, have resulted directly from one brilliant success, and that was an operation which was done by Torek in 1913. It was a remarkable operation, and was successful, and I believe the patient is still alive. Practically the whole of the thoracic œsophagus was removed. The growth was situated in the upper part of the œsophagus. Preliminary gastrostomy was done and later the chest was opened and the œsophagus mobilised. An incision was then made in the neck and through this the œsophagus was drawn, the growth cut away, and the upper end sutured to the incision in the skin. The patient now takes his food by means of a tube, which is passed from cervical opening to the gastrostomy. This was a brilliant success, but it led to many other similar attempts being made, often in unsuitable cases I think, and they have all been failures. The failures, I believe, have been due to two main causes: sepsis, which is very fatal in the chest, and shock due to too severe and prolonged an operation. Lilienthal devised an operation with a view to overcoming these two dangers. The operation was done in stages in order to diminish shock, and spreading sepsis was avoided by postponing the opening of the œsophagus until the mediastinum and pleura were sealed off. Lilienthal performed this operation successfully in 1920. He lifted up a flap of skin from the wall of the chest and opened the chest underneath it, separated the pleura until he could reach the œsophagus, then mobilised the portion of œsophagus which contained the growth. The flap of skin which had been turned back from the thorax was now passed underneath the œsophagus and brought up to the chest wall. This concluded the first stage, the wound being packed with gauze, and the pleura being kept away by rubber tissue. When the parts had become adherent, the growth was removed by dividing the œsophagus at each end of the trough of skin. A tube was now passed between the cut ends of the œsophagus for feeding purposes. After a time the pedicle of the skin flap was divided and a tube of skin thus formed between the cut ends of the œsophagus. The chest wound gradually healed, and the patient left the hospital swallowing well. Of the subsequent history I cannot speak.

I determined, in my case, to follow on the same lines, and I performed practically a similar operation. A flap of skin was turned back, reaching from the upper border of the 8th rib to the lower border of the 10th. A considerable portion of the 8th rib was then removed, the ribs separated, and a remarkably good view of the parts so obtained. I attempted to separate the pleura without opening it, but that proved impossible, because it was so thin and adherent. The posterior part of the pleura was more easily separated, and I could then see the aorta and near it the splanchnic nerves, and beyond this I could feel the œsophagus, and the growth exactly where I was prepared to find it. Finding that the growth was comparatively small and freely movable, more room was obtained by division of the posterior ends of several ribs. The further steps of the operation consisted in mobilising the œsophagus down to the diaphragm and separating it from the surrounding structures. It separated easily, except for a small area where it was slightly adherent to the pericardium and as I could not feel any involved glands in the mediastinum, I was hopeful that the operation might be a success. The man became rather bad in the middle of the operation, so my house-surgeon gave him $1\frac{1}{4}$ pints of gum solution intravenously, and this picked him up wonderfully. The skin flap was now slipped under the œsophagus and fixed with a few stitches, the chest was lightly packed with gauze, and the patient sent back to bed in very fair condition. He passed a good night, and at 10 o'clock next morning my house-surgeon saw him and spoke to him, and he seemed cheerful. But within a few minutes he dropped back dead. We do not know exactly what the cause of death was. I think probably it was cerebral embolism; very sudden deaths after operation are sometimes due to that cause, but as no examination of the brain was made *post-mortem*, this point was not settled. At anyrate no other cause of death was discovered.

The growth in the œsophagus proved to be quite a small one, not more than $1\frac{1}{2}$ inches in vertical extent, and, except for the slight adhesions to the back of the pericardium, there was no evidence that the growth had extended beyond the actual coats of the œsophagus.

I think there is little doubt that this method offers the best chance of successful removal of a malignant growth of the thoracic portion of the œsophagus, and although the operation is an extremely severe one I am hopeful that with early diagnosis, careful attention to details, and the help of up to date methods of combatting shock, and producing anæsthesia some measure of success may be attained.

IMPORTANT ANNOUNCEMENT.

On the occasion of the visit to the Hospital on

MONDAY, JUNE 29th, 1925, at 2.30 p.m.

of

H. R. H. THE DUKE OF YORK, K.G.

who will Distribute the Prizes to the successful Students,

A GARDEN PARTY

will be held.

There will be Music in the Grounds; and the Laboratories, Museums, College, The Henriette Raphael Nurses' Home and Wards will be open to inspection.

ACADEMIC OR MORNING DRESS.

Guy's Men, and their Friends interested in the welfare of the Hospital and Schools, are specially invited. Those wishing to attend are asked to apply for Tickets to the Dean, or to the Clerk to the Governors, Counting House, Guy's Hospital, London Bridge, S.E. 1.

Correspondence.

SIR,—In the last issue of the GAZETTE I was surprised to find a paragraph added to a small communication of mine on a case of cerebral hernia. This was done entirely without my knowledge or authority, indeed, I had requested that the article be kept back owing to the unfortunate death of the subject.

The paragraph itself entirely misrepresents the case. As a matter of fact, the child's scar did suppurate, following a blow, but she was taken in and operated upon for signs of compression, etc., which were found to be due to the extension of a chronic abscess, a large collection of pus being found which eventually spread to the lateral ventricle, a generalising meningitis resulting.

Perhaps it would be a good plan if, in future, reference were made to the source before additions to such articles were made by persons who know nothing of the circumstances, and are, at best, acting on hearsay.—Yours, etc.,

J. S.

Guy's Hospital,
London, S.E.1.
10th June, 1925.

[We much regret the unwarranted addition of this unintelligent paragraph, which was communicated to us by a "J. S.," whom we stupidly took to be the author of the article in question.—ED.]

Guy's Hospital Past and Present Nurses' League.

THE 17th Annual Dinner and the 25th General Meeting of the Guy's Hospital Past and Present Nurses' League was held in the Nurses' Home on Friday evening, May, 15th, 1925, and we are sure that the members who were present will always have pleasant memories of the Bi-Centenary year League Dinner. To mark this special occasion, Sir Henry Cosmo Bonsor, the Senior Governor, accepted an invitation to dine with the Nurses and take the chair at the Annual Meeting. Among the invited guests were Lady Cosmo Bonsor, the President of the Nurses' League, the Hon. Mrs. Molyneux, Lady Lane, Lady Hale White, Mrs. Fagge, Mrs. Hughes, Mrs. Steward, and Mrs. Chapple. Over 240 Past and Present Members sat down to Dinner, which was served punctually at 7 o'clock. The tables looked very pretty with their floral decorations of yellow iris, glittering glass and cutlery and hand-painted menus. Everyone seemed to enjoy the well-cooked and daintily served meal, and the Home Sister is to be congratulated upon the very successful way in which all the arrangements for the comfort of the guests were carried out.

After Dinner over 400 Members assembled in the Nurses' Recreation Room for the business of the Annual Meeting which was opened by the Matron, who said she was sure it was a great pleasure to all Members present, that this, the Bi-Centenary Year Meeting, was honoured by the presence of our President, Lady Cosmo Bonsor, and our Senior Governor of the Hospital, Sir Henry Cosmo Bonsor, and also by several Hon. Members of Council who had given us such valuable help during the year. She had great pleasure in asking Sir Henry Cosmo Bonsor to take the chair.

To save time the Minutes of the last Annual General Meeting were taken as read and signed, and the chairman then called upon the Matron, the Hon. Secretary, to give an account of the year's work. Before doing this, the Matron said, "I think that Sister Rebecca would like to say a few words to Lady Bonsor," whereupon Sister Rebecca, our Senior Sister, came forward with a beautiful bouquet of pink carnations, which she presented to Lady Bonsor on behalf of the Members, amid a storm of applause which completely drowned the President's words of acknowledgement.

The Matron then proceeded to read the report of the year's work as follows:—

About 80 members have been transferred to the Past Section during the year.

170 "Week-ends" and "days off" have been spent at the Cottage during the year and over 1,200 short visits for breakfast and tea.

1,314 volumes have been taken out of the Nurses' Library during the year and 30 new volumes have been added.

The Nurses' Tennis Club again took part in the Tennis Tournament arranged by the *Nursing Times*. 49 Hospitals entered and once again the Guy's Team worked its way into the Final, but was again defeated by St. Thomas's Hospital Nurses. Great interest was centred in the match and it was hoped that Guy's would be successful in winning the Cup once more, but St. Thomas's after a hard struggle were successful in retaining the Cup. The Cup was presented to the winning team by Sir Arthur Stanley, who asked the losers to accept a little souvenir from him as a tribute to their sporting spirit and excellent play.

The entries for the Fagge Cup Singles Competition were not so numerous this year, and great difficulty was experienced in playing off the ties owing to the wet season. After many attempts, the Final was eventually played off in November, Nurse D. Stubbs winning the Cup in two straight sets. Two or three matches, Sisters versus Nurses, were also played during the year.

The Nurses' Swimming Club was successful in winning for the fourth time the Silver Challenge Cup given by Sir Alfred and Lady Fripp, and this was presented at the Inter-Hospital Swimming Sports held at the Bath Club. In May the Guy's Team competed for the "Holmes" Vase given by the Governors' of the Prince of Wales Hospital, Tottenham, and was successful in winning the Vase for the third time. The Inter-Hospital Swimming Club held its Second Annual Gala in September at the Royal Automobile Club Baths; Nurses from every Hospital competed, and Guy's Nurses were successful in winning several prizes. Our own Gala Night in the Home Swimming Bath was held on July 22nd. Miss Daly from the Bath Club and Miss Hughes, Matron of the Vincent Square Infants' Hospital, kindly acted as judges in the several events. The Silver

Challenge Cup presented by Lady Fripp was won by Nurse P. Holmes.

The Team of Guy's Nurses who entered for the Inter-Hospital Challenge Shield at the Exhibition of Cookery, Horticultural Hall, Westminster, were again successful in winning the Trophy against strenuous competition.

The Nurses' Choral Society and the Nurses' Dramatic Society, in conjuction with the Guy's Hospital Musical Society, have had a very successful season. In November, a very enjoyable Concert was given at the Chapter House which proved a great success, and a sufficient sum of money was collected to defray all expenses. On the 25th, 26th, and 27th of this month three performances of "Iolanthe" are to be given at the Guildhall School of Music by the Guy's Hospital Musical Society in aid of the Guy's Hospital Bi-Centenary Appeal Fund, and tickets may be obtained at the Matron's Office.

An effort has been made to revive the Nurses' Debating Society, and I am pleased to say a very interesting debate was held in the Nurses' Home this month, as a result we all look forward to many other Debates taking place during the coming year.

The Nurses' League Bi-Centenary Appeal Fund had a wonderful response. Individual Members have subscribed most liberally, and as we think it is possible others may still wish to do so, we are keeping the Fund open until the end of June. Up to date, 750 Members have subscribed, and the total amount received is £2,343 8s. 1d.

With regard to the Exhibitions now on view in the Sitting Rooms, entries for the Needlework Exhibition have not been so numerous this year, the Present Nurses sending in very little work. Mrs. Burgwin again very kindly came and judged the needlework, and although she was disappointed to find so little plain needlework on view, she considered some of the Fancy work, crochet, lace and embroidery worthy of great praise.

Many more Exhibits have been sent to the Photographic Exhibition, and there are some very nice enlargements on view.

I am glad to say that the Class for "The entire work of the Exhibitor" has received greater support this year and some good photographs have been sent in. I should like to remind you that we have a well-equipped dark room and a vertical enlarger, and the Nurses may have the use of this room whenever they wish. The awards have again this year been given by popular vote, and the Present Nurses found great difficulty in deciding as to the best photograph in the Exhibition. A report of both Exhibitions will be sent later to all exhibitors. Prizes have kindly been placed at the disposal of the judges by Lady Bonsor, The Hon. Mrs. Molyneux, Lady Lane, Lady Hale White, Mrs. Fagge, Mrs. Steward and Mrs. Doubleday.

Since our last Meeting I regret to record the death of seven Past Members and two Associate Members.

Miss Sarah Ann Silverwood, who died at Finchley on July 14th, 1924, from heart disease. Miss Silverwood entered Guy's as a Probationer in January, 1892, and on completion of her training took up private nursing at the Institute, leaving there in 1911 to work on her own account.

Mrs. Rita Biddle, née Sutton, who died at Buxton after a long illness on August 17th, 1924. Mrs. Biddle entered Guy's as a Probationer in May, 1917, and left on completion of her training in 1920 to be married.

Miss Edith Grace Wallis, who died at Brendon, Palm Bay, Cliftonville, on September 12th, 1924, after a long illness. On completion of her training, Miss Wallis held the post of Medical Night Sister and Sister-in-Charge of the Wardmaids, and left to open a Nursing Home at Margate with Miss Crampton.

Mrs. Augusta M. Wood, who died at Berrywood, Heyshott on September 23rd, 1924. Mrs. Wood entered the Hospital in October, 1902, and on completion of her training joined the Private Nursing Staff and left to be married in 1910.

Miss Marjorie Burton, who died from phthisis on October 19th, 1924, at Burley, Brockenhurst after a long illness. Miss Burton entered Guy's as a Probationer in November, 1913, and on completion of her training, held the appointment of Staff Nurse for a year. In 1919 she opened a Private Convalescent Home at Burley with her friend Miss Ferguson.

Miss E. A. Nurse, who died at Wisbech on February 3rd, 1925, from shock following burns. Miss Nurse entered Guy's as a Probationer in February, 1915, and on completion of her training held appointments in various Red Cross Hospitals during the War.

Miss Maggie Roberts, who died from phthisis on February 22nd, 1925, at Herne Bay after a long illness. Miss Roberts entered as a Pro-

bationer in November, 1917, and on completion tion of her training in April, 1921, was appointed Sister at Charing Cross Hospital, which post she held until the end of 1922, when she had to give up her nursing work on account of ill-health.

Miss Marjorie Nicholson, who died in Esther Ward on June 17th, 1924, from typhoid. Miss Nicholson entered the Hospital as a Probationer in November, 1922.

Miss Evelyn M. Shelley, who died in Mary Ward on June 25th, 1924, after a few days' illness from septicæmia. Miss Shelley entered the Hospital as a Probationer in September, 1921.

I have much pleasure in presenting the financial statement for the year which I am glad to say is a very satisfactory one. The Hon. Members subscriptions amount to £41 10s., the Past Members' subscriptions and composition fees to £116 8s. and the Present Nurses' subscriptions to £118 17s. 6d. The subscriptions and grants this year have again more than covered the working expenses of the Cottage and different Clubs, although we have incurred very heavy expenses with regard to the Tennis Club, the Court having to be made up and a concrete channel made to carry off the rain water. We have also paid a sum of £29 3s. 4d. part cost of railway tickets to Honor Oak Park for the Nurses. Our Income for the year amounted to £631 18s. 6d. and our total Expenditure to £529 14s. 1d. The donations received last year for the Cottage Fund have been devoted to the purchase of War Loan Bonds as suggested at our last Meeting, and form a nucleus to which we hope to add in the future. We are carrying forward a balance at the Bank of £126 18s. 5d., but the greater part of this sum will this year have to be spent on redecorating and cleaning the Cottage.

The adoption of the Report and the Statement of Accounts was moved by Miss Coulton, Matron of the East London Hospital for Children, and seconded by Miss M. Ellis Rowell.

Sir Cosmo Bonsor next presented the Medals and Prizes to the Sisters and Nurses as follows:—

The Butterworth Medal.

The Butterworth Medal, instituted by Joshua W. Butterworth in 1889, is awarded to all Nurses of Guy's Hospital who shall have completed 5 years continuous satisfactory service at the said Hospital.

Sister Edith M. Bodkin.
Sister Evelyn M. Cawthorne.
Sister Alice E. Cornwall.
Sister Evelyn M. Elliott.
Sister Mary E. Jameson.
Sister Frances L. Mutimer.
Sister Amy T. Samuel.
Sister Florence J. Smith.

Cazenove Medal.

The Cazenove Gold Medal awarded to the Nurse who shall have obtained the highest aggregate percentage of marks in all the Examinations held during 1923 and 1924.

Nurse Gladys Ireland and Nurse Norah M. Kersley, equal.

(Two Medals were awarded.

The Keogh Prize.

The Keogh Prize, consisting of Surgical Instruments, awarded to the Nurse obtaining the highest number of marks in the Surgical Examinations.

Nurse Mary C. Isaac.

The Morrison Prizes.

The Morrison Prize, Medical Books, awarded to the Nurse obtaining the highest number of marks in the Examinations in Medicine and Nursing subjects.

Nurse Gladys I. Bloomfield.
Nurse Phyllis M. Carden.

The Governors' Prizes.

The Governors' Prizes, Medical Books, awarded to Probationers obtaining the highest number of marks in the two Junior Examinations held during the year.

Nurse Phyllis M. Carden.
Nurse Muriel E. Alchin.

Sir Cosmo Bonsor, on rising to address the Meeting, said that it was a great pleasure to him to receive an invitation to dine with the Past and Present Members of the Nurses' League, and it gave him greater pleasure to congratulate them on the result of the League Bicentenary Fund. It was a splendid result and he hardly knew how to express his gratitude to the Nurses for the tremendous amount of trouble they must have taken in collecting so much money from their friends for their Hospotal in its time of need. From personal experience he knew begging was not a pleasant

occupation, and he knew of only one of his friends who really enjoyed begging, Lord Knutsford, who was a champion in that line and had been most successful in obtaining funds for the London Hospital. He thanked them most sincerely on behalf of the Governors for their splendid gift to the Hospital.

His recollections of the Hospital and its Nurses carried him back to 1861, when the Governors came to the conclusion that the Nurses of Guy's Hospital ought to be lodged and boarded in the Hospital, up to that time they had lived out and had an allowance of bread and small beer, and the Treasurer (Mr. Turner) also moved that the number of Nurses should be increased from 52 to 72. Things then went on quietly until 1879, when Miss Burt became Matron, and it was necessary to make drastic alterations which resulted in many changes. In 1882 he (the speaker) was elected a Governor and he could tell them that the Matron and the Nurses were not very comfortable in those days, the Hospital was so poor that they had no cups and saucers and tea was served in galley pots, and it was not for some time afterwards that this was remedied. In 1897, the Matron suggested that the Night Nurses should have a hot meal in the night in the Dining Hall under Hunt's House, and it was all arranged, but the Nurses would not go down to the meal as the place was overrun with black beetles; fortunately he knew of a man who was soon able to get rid of the pests. It was at this time that the Governors came to the conclusion that the Nurses must have better accommodation, he was Treasurer at the time—we had no money, three of the Wards were closed and he did not know where to turn for funds, when one day, Mr. Cohen, a fellow Governor, told him that Mr. Henry Lewis Raphael was anxious to have a permanent memorial to his wife and was ready to give the Hospital a large sum of money for the purpose. Mr. Raphael came and saw the site upon which we proposed to build the Nurses' Home and he then gave me a cheque for £20,000, and we were able to build the beautiful Nurses' Home, known as the Henriette Raphael Nurses' Home, which you now occupy.

I congratulate you most heartily on the present status of the Nursing Profession, that your position is now secure and that you have your own College and your own Charter. (Great applause.)

Sir Cosmo Bonsor then put the question to the Meeting "That the two beds endowed by their gift should be placed in Mary and Esther Private Rooms, and that a plate recording their gift should be placed over each bed." This proposition was carried unanimously.

Votes of thanks were then recorded to the retiring Hon. Members of Council, Lady Fripp, Lady Hale-White and Mrs. Robarts on the proposal of Miss Mannell, seconded by Mrs. Hinchliff. To Mrs. Hughes, the Hon. Treasurer, on the proposal of Miss Enid Newton seconded by Miss G. H. Fletcher. To the Matron, the Hon. Secretary, on the proposal of Mrs. Poolman, seconded by Miss Hughes, Matron of the Infants Hospital, Vincent Sq.

Dame Sarah Swift, G.B.E., R.R.C., on rising to propose a vote of thanks to Sir H. Cosmo Bonsor for presiding at the Meeting, received a great ovation. Dame Sarah said it gave her very great pleasure to propose this vote of thanks, for she knew how much the Nurses' League and the Hospital owed to Sir Cosmo and Lady Bonsor. As you all know the League originated in the Nurses' Recreation Society, which at that time had a very heavy debt on the Recreation Cottage at Honor Oak Park, and Sir Cosmo and Lady Bonsor came to our aid time after time. In due course we extended the activities of the Society and took in the Past Nurses and formed the Past and Present Nurses' League and Lady Bonsor became our first President and has always taken the greatest interest in all our doings. You will remember last year when Sir Cosmo Bonsor heard of the great effort the Nurses' League was making to raise money to pay off the debt remaining on the Cottage, he brought the matter before the notice of the Governors and did not rest until an arrangement was made by which Trustees were appointed to hold the Cottage and Grounds in trust for the Nurses Past and Present of Guy's Hospital for all time.

Miss A. C. Robins seconded the proposal amid much applause and the Meeting was brought to a close by the Members singing "For he's a jolly good fellow," and hearty cheers for Sir Cosmo Bonsor.

Tea and coffee were then served and many exclamations of delight were heard on all sides as old friends recognised each other, and reminiscences of former years were recalled. Before leaving, Members visited the Sitting Rooms where the Needlework and Photographic Exhi-

bitions were on view, after which they gradually dispersed and a delightful evening came to an end.

PHOTOGRAPHIC EXHIBITION.
LIST OF AWARDS.

Class A.—Entire Work of Exhibitor.

1st Prize.—Miss K. Looker: "Distant Hills."
2nd Prize—Miss B. Dixon: "Conspiracy."
Highly Commended.—Miss K. Looker: "Flower Clock."
Highly Commended.—Miss A. M. Carpenter: "Drawing Room in Fort Agra."

Class B.—Not the Entire Work of Exhibitor.

1st Prize.—Miss G. Bristow: "Victoria Falls."
2nd Prize.—Miss E. Carr-Hill: "On a Suffolk Farm."
3rd Prize.—Miss M. Connelly: "Land's End," "A Tight Fit," "Seal's Cave, Cornwall."
4th Prize.—Miss J. Worthington: Pres d'Ajaccio, Corsica."
Highly Commended.—Mrs. E. M. Rowlands: "A Yorkshire Alley."
Highly Commended.—Miss Worthington: "Le Quai d'Ajaccio, Corsica."
Highly Commended.—Miss G. H. Fletcher: "Beech Trees."
Highly Commended.—Miss E. Carr-Hill: "Vlinique la Prairie, Lake Geneva."

NEEDLEWORK EXHIBITION.
LIST OF AWARDS.

SECTION I.—*Unwashed Exhibits.*

Class A.—Plain Needlework.

1. *Underclothing*—
   1st Prize.—Miss M. Shackleton.
   2nd Prize.—Miss M. Morelly.
   Highly Commended.—Miss S. Pollard.
2. *Children's Clothes*—
   Highly Commended.—Miss B. Dixon.
   Highly Commended.—Miss K. Looker.
3. *Patching and Darning*—
   1st Prize.—Miss H. Burton.

Class B.—Fancy Work.

1. *White Embroidery*—
   1st Prize.—Miss C. Pearse.
   Highly Commended.—Miss M. Morelly.
3. *Drawn Thread Work*—
   Highly Commended.—Miss J. Hills.
4. *Cut Work and Other Embroidery.*
   1st Prize.—Miss A. M. Lithgow.
   2nd Prize.—Miss M. S. Yeaxles.

Class C.

1. *Lace*—
   1st Prize.—Miss G. Bristow.
   Highly Commended.—Miss R. Lyons.
3. *Knitting.*
   1st Prize.—Miss F. J. Jackson.
   2nd Prize.—Miss L. M. Taylor.
   Highly Commended.—Mrs. A. Hawes.
   Highly Commended.—Miss M. C. Isaac.

Class D.

Dressmaking and Millinery—
   1st Prize.—Miss H. O. Brown.
   Highly Commended.—Miss E. M. Elliott.

Class E.

Miscellaneous—
   Highly Commended.—Miss M. George. (Two Paintings).

SECTION II.—*Washed Exhibits.*

Class A.—Plain Needlework.

Underclothing—
   Highly Commended.—Miss D. Evershed.

Class B.—Fancy Work.

1. *White Embroidery*—
   1st Prize.—Miss C. E. Barker.
   Highly Commended.—Miss D. Maidment.
   Highly Commended.—Miss M. George.
2. *Handanger Work*—
   Highly Commended.—Miss G. H. Fletcher.
   Highly Commended.—Miss G. Bristow.
3. *Drawn Thread Work*—
   Highly Commended.—Miss M. Masters.
4. *Cut Work and Other Embroidery.*
   Highly Commended.—Miss D. Haigh.

Class C.

Lace, Crochet and Knitting—
   1st Prize.—Miss M. George.
   Highly Commended.—Miss G. Allen.

Class D.

Dressmaking and Millinery—
   Highly Commended.—Miss W. Johnson.

Table showing the Attendances of the Medical Staff in the Wards and the Out-Patient Department.

	Morning. Wards and Out-Patients.	Afternoon. Wards and Out-Patients.	Afternoon. Surgical Wards & Theatres. T. = Teaching Rounds.
Monday	Mr. Mollison (Wards and Ops. 10 a.m.) Dr. Mutch (Medical O.Ps.) Mr. Hughes (Surgical O.Ps.) Dr. Cameron (Children O.Ps.) Mr. Thompson (Wards & Ops.) 10 a.m.	Dr. Fawcett Dr. French Dr. Mutch Dr. Marshall (Wards 2 p.m.) Dr. Symonds (Wards). Mr. Cook (Wards & Ops.) Mr. Chapple (Gy. O.Ps.) Mr. Morgan (Eye O.Ps. Wards after O.Ps.) Mr. Layton (Thr. O.Ps.) Mr. Trethowan (Orth. O.Ps. 1 p.m.) Mr. Lloyd (V.D.O.Ps. 5—8 p.m.) Miss Rawlins (5—8 p.m.)	T. Mr. Steward. Mr. Fagge. Mr. Davies-Colley. Mr. Rowlands. Mr. Bromley. Mr. Turner. Mr. Slesinger.
Tuesday	Dr. Marshall (Medical O.Ps.) Mr. Davies Colley (Surgical O.Ps.) Dr. Barber (Wards 10 a.m.) Dr. Barber (Skins O.Ps. 10.30 a.m.) Mr. Lloyd (V.D.O.Ps. 9 a.m.—12 noon) Mr. Trethowan (Wards and Ops.) Dr. Ryle (Wards 10 a.m.) Dr. Poulton (Wards).	Dr. Fawcett Dr. Beddard Dr. Hurst (Wards). Mr. Ormond (Wards & Ops. 2 p.m.) Mr. Chapple (Wards (T) & Ops. 2.15 p.m.) Mr. Layton (Wards & Ops. 1.30 p.m.) Dr. Barber (Skins O.Ps.) Mr. Eason (Eye O.Ps.) Mr. Mollison (Thr. O.Ps.) Dr. Marshall (Tub. O.Ps. 1 p.m.) *Mr. Slesinger (Frac. O.Ps. 1 p.m.) *Dr. Eyre (Vaccine O.Ps. 1 p.m.) Mr. Thompson (G.U.O.Ps.) Dr. Cameron (Wards 2 p.m.)	T. Mr. Rowlands. Sir Alfred Fripp. Mr. Turner. Mr. Steward. Mr. Hughes.
Wednesday	Dr. Hunt (Wards) Dr. Cameron (Children O.Ps.) Dr. Conybeare (Medical O.Ps.) Mr. Slesinger (Surgical O.Ps.) Drs. Symonds & Craig (Neur.-Psych. O.Ps.) Mr. Lloyd (V.D.O.Ps. 10 a.m.–12 noon)	Mr. Trethowan (Orth. O.Ps. 1 p.m.) Miss Rawlins (V.D.O.Ps. 2–5 p.m.) Dr. Marshall (Tub. O.Ps. 5 p.m.) *Mr. Rumsey (Defective Speech 1 p.m.) Mr. McNair (Gy. O.P.s)	
Thursday	Mr. Mollison (Wards and Ops. 10 a.m.) Dr. Ryle (Medical O.Ps.) Mr. Turner (Surgical O.Ps.) Dr. Barber (Skins O.Ps.) Mr. Thompson (Wards & Ops. 10 a.m.) Dr. Symonds (Wards)	Dr. Fawcett Dr. Beddard Dr. French Dr. Hunt (Wards). Dr. Cameron (Children Ward 2 p.m.) Mr. Chapple (Wards (T) and Ops. 2.15 p.m.) Mr. Ormond (Eye O.Ps. Wards after O.Ps,) Mr. Layton (Thr. O.Ps.)	T. Sir Alfred Fripp. Mr. Fagge. Mr. Davies-Colley. Mr. Rowlands. Mr. Bromley. Mr. Slesinger.
Friday	Dr. Barber (Wards—Skins 10 a.m.) Dr. Poulton (Medical O.Ps.) Mr. Promley (Surgical O.Ps.) Dr. Cameron (Children O.Ps.) Mr, Trethowan (Wards and Ops.) Mr. Lloyd (V.D.O.Ps. 9 a.m.—1 p.m.) Mr. Layton (Wards and Ops,) Dr. Mutch (Wards 11 a.m.)	Dr. Fawcett Dr. French Dr. Beddard Dr. Hurst (Wards). Mr. Cook (Gy. O.Ps.) Mr. Eason (Wards & Ops. 2 p.m.) Mr. Morgan (Eye O.Ps. Wards after O.Ps.) Mr. Mollison (Thr. O.Ps. 11 a.m.) *Mr. Trethowan (Orth. O.Ps. Plasters 1.30 p.m.) *Dr. Eyre (Vaccine O.Ps. 1 p.m.) Dr. Marshall (Tub. O.Ps. 1 p.m.) Mr. Thompson (G.U.O.Ps.) Miss Rawlins (V.D.O.Ps. 5–8 p.m.) Mr. McNair (Wards & Ops.)	T. Mr. Fagge. Sir Alfred Fripp. Mr. Turner. Mr. Steward. Mr. Hughes.
Saturday	Dr. Conybeare (Medical O.Ps.) Mr. Slesinger (Surgical O.Ps.) Dr. Symonds (Neur. O.Ps.) Dr. Ryle (Wards 10 a.m.) Dr. Marshall (Wards 10 a.m.)		

* = For reference only.

TIME TABLE FOR ATTENDANCE OF PATIENTS IN THE OUT-PATIENT DEPARTMENT.

N.B.—NEW patients should not be sent to those departments marked with an asterisk.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
MEDICAL 9 a.m.	Dr. Mutch	Dr. Marshall	Dr. Conybeare	Dr. Ryle	Dr. Poulton	Dr. Conybeare
SURGICAL 9 a.m.	Mr. Hughes	Mr. Davies-Colley	Mr. Slesinger	Mr. Turner	Mr. Bromley	Mr. Slesinger
CHILDREN 9 a.m.	Dr. Cameron	—	Dr. Cameron	—	Dr. Cameron	—
SKINS	—	Dr. Barber 10.30 a.m.	—	Dr. Barber 9 a.m.	—	—
*FRACTURES 1 p.m.	—	Mr. Slesinger	—	—	—	—
*T. B. DEPT.	—	Dr. Marshall 1 p.m.	Dr. Marshall 5 p.m.	—	Dr. Marshall 1 p.m.	—
*VACCINES, ETC.	—	Dr. Eyre 1 p.m.	—	—	Dr. Eyre 1 p.m.	—
ORTHOPÆDICS 1 p.m.	Mr. Trethowan	—	Mr. Trethowan	—	*Plasters only 1.30 p.m.	—
GYNÆCOLOGY 11.30 a.m.	Mr. Chapple	—	Mr. McNair	—	Mr. Cook	—
NERVOUS DISEASES 9 a.m.	—	—	Dr. Symonds	—	—	Dr. Symonds
EYES 11.30 a.m.	Mr. Morgan	Mr. Eason	—	Mr. Ormond	Mr. Morgan	—
EAR, NOSE and THROATS	Mr. Layton 11.30 a.m.	Mr. Mollison 11.30 a.m.	—	Mr. Layton 11.30 a.m.	Mr. Mollison 11 a.m.	—
GENITO-URINARY 11.30 a.m.	—	Mr. Thompson	—	—	Mr. Thompson	—
V.D. F. (Daily 9 a.m. to 8 p.m.)	Miss Rawlins 5 to 8 p.m.	—	Miss Rawlins 2 to 5 p.m.	—	Miss Rawlins 5 to 8 p.m.	—
V.D. M. (Daily 9 a.m. to 8 p.m.)	Mr. Lloyd 5 to 8 p.m.	Mr. Lloyd 9 a.m. to 12 noon.	Mr. Lloyd 10 a.m. to 12 noon.	—	Mr. Lloyd 9 a.m. to 1 p.m.	—
*DEFECTIVE SPEECH	—	—	Mr. St. John Rumsey 1 p.m.	—	—	—

DENTAL.—Daily at 9.0. a.m. Children, Tuesday and Thursday at 9.0. a.m.

Guy's Hospital Bicentenary Appeal.

Fourth List of Contributions and Promised Contributions.

(*Concluded.*)

	£	s.	d.
Mrs. J. Fawcett (per Dr. J. Fawcett)	50	0	0
The Rt. Hon. Earl and Countess of Lovelace (per F. J. Steward. Esq., M.S.)	5	5	0
A. E. Lowein, Esq., L.D.S., R.C.S.	5	0	0
Loyal Perseverence Lodge, Bermondsey	9	9	0
Loyal Sons of the Thames Lodge ...	5	5	0
T. Lucas, Esq.	5	0	0
P. E. Luce, Esq., L.D.S., R.C.S. ...	5	5	0
Miss Nancy Lucy	5	0	0
V. A. Luna, Esq., M.R.C.S., L.R.C.P. (per collection)	20	7	0
Dr. W. Macewan (per Dr. A. F. Hurst)	5	5	0
A. Mackertick, Esq. (per R. P. Rowlands, Esq., O.B.E., M.S.) ...	5	0	0
R. G. Macmillan, Esq. (per J. McNair, Esq.)	10	10	0
Mrs. Macnalty (per Mrs. Ogilvie) ...	26	5	0
Mrs. Mainwaring	5	0	0
Sir Harry Mallaby-Deeley, Bt. (per Dr. J. Fawcett)	10	10	0
Manchester Union Friendly Society, South London District	10	10	0
Manger & Henley	10	10	0
F. H. Manley, Esq. (per Dr. H. W. Barber)	5	0	0
J. D. Marchand, Esq. (per Dr. N. Mutch)	15	0	0
Ivor Margolies, &Esq., L.D.S. (per collection)	6	15	0
Dr. O. Marriott (per collection) ...	10	9	6
W. K. Marriott, Esq.	10	10	0
C. Marrot, Esq. (per W. H. Ogilvie, Esq., F.R.C.S.)	2	2	0
H. E. Marsh, Esq., L.D.S. (per collection)	16	1	0
H. R. Marsh, Esq., M.R.C.S., L.R.C.P. (per collection)	12	14	5
J. A. Martin, Esq., M.R.C.S., L.R.C.P.	5	0	0
G. Marvin, Esq.	5	5	0
E. N. Mason, Esq., L.D.S.	5	0	0
Massage Department Collection (per Sister, additional to date)	76	3	9
A. L. Matthews, Esq., and E. A. Lloyd, Esq., L.D.S.	5	5	0
F. C. Mattison, Esq. (per Dr. A. F. Hurst)	10	10	0
Jas. Matts, Esq. (per Sir Alfred Fripp, K.C.V.O., C.B., M.S.)...	10	10	0
Charles May, Esq. Ll.B. (per W. D. Doherty, Esq., F.R.C.S.)	5	5	0
May & Baker (per E. Williamson, Esq.)	10	10	0
Mayfair Dramatic Club (additional) ...	10	0	0
John McBride, Esq., L.D.S. (per collection)	5	5	0
G. C. D. McLellan (per W. D. Doherty, Esq., F.R.C.S.)	5	5	0
A. J. McNair, Esq., M.B., B.Ch. ...	25	0	0
Medical and Dental School Employees (per S. H. Croucher, Esq.)	10	6	2
E. V. Melville, Esq.	5	5	0
E. Melly, Esq. (per H. Ashwin, Esq.)	20	0	0
H. L. Messenger, Esq., L.D.S. (per collection)	12	15	0
G. H. Metcalfe, Esq., M.R.C.S. (per collection)	55	17	0
J. Metzger & Co.	5	5	0
The Earl of Mexborough (per F. J. Steward, Esq., M.S.)	10	0	0
Mrs. Meyer-Salaman (per W. E. P. Phillips, Esq., M.R.C.S.)	5	5	0
Stewart Michie, Esq. (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.)	5	5	0
H. Milbank-Smith, Esq., M.R.C.S., L.R.C.P. (per collection)	10	10	0
W. A. Millar & Rons (per W. J. Curry, Esq.)	21	0	0
A. J. Mills & Co., Ltd.	10	10	0
Mrs. Moat (per R. P. Rowlands, Esq. O.B.E., M.S.)	5	0	0
Mrs. Eyres Monsell (per F. P. Whitbread, Esq.)	10	0	0
Arthur Morris & Co.	21	0	0
George Morris & Son, Ltd.	10	10	0
John Morrison, Esq.	5	5	0
Mrs. Anderson Morshead	5	0	0
J. H. Mortimer, Esq. (per K. Wright, Esq.)	13	13	0
Dr. R. D. Mothersole	10	0	0
Mullens, Marshall, Steet, Lawford & Co.	105	0	0
Sir John A. Mullens	105	0	0
A. Mummery, Esq. (per collection) ...	27	6	0
H. A. Munro, Esq., M.B., B.Ch. ...	20	0	0
G. B. Muriel, Esq., M.B., B.Ch. ...	5	5	0
Dr. C. D. Muspratt	5	0	0
Dr. N. Mutch	25	0	0
N. M. Wadia Charities, Bombay (per Dr. Kohiyar)	300	0	0
S. G. Nash, Esq.	10	10	0
National Bank, Ltd.	10	10	0
National Society of Operative Printers and Assistants	10	0	0
National Society's Training College of Domestic Subjects (part proceeds of an Entertainment)	10	0	0
Miss Neeld (per collection)	7	7	0
Mrs. Leslie Nelson (per Dr. J. Fawcett)	10	10	0
New Zealand Loan and Mercantile Agency	5	5	0
The Rector of Newdigate (per Dr. H. French, C.B.E.)	12	10	11
Mrs. Newgrass (per Dr. C. P. Symonds)	5	5	0
Mr. and Mrs. E. W. Nicholls (per F. J. Nicholls, Esq., M.B., B.Ch.) ...	10	10	0
D. M. Nicholson, Esq.	21	0	0
R. D. Nicholson, Esq. (per F. P. Whitbread, Esq.)	10	0	0
Nickerson, Bros.	5	0	0
L. Ladefoged Nielsen & Co.	5	5	0
The Hon. John Nivison	250	0	0

	£	s.	d.
North Pole Ice Co., Ltd.	5	5	0
G. P. Norton, Esq., J.P. (per A. Simpson-Smith, Esq.)	10	10	0
Dr. A. B. O'Brien (per Dr. F. G. Gibson)	5	0	0
A. Oddenino, Esq. (per Dr. J. J. Conybeare, M.C.)	5	5	0
F. Ogilvie, Esq. (per W. H. Ogilvie, Esq., F.R.C.S.)	5	0	0
W. H. Ogilvie, Esq., F.R.C.S.	10	10	0
Ohlenschlager Brothers, Ltd.	10	0	0
Old Guy's Men of East London (per collection)	6	6	0
W. W. Oliver, Esq.	5	5	0
A. G. Osborn, Esq., M.B., B.S. (per collection)	14	12	0
Mr. and Mrs. Cecil Owen (per P. Turner, Esq., M.S.)	10	0	0
Eustace Palmer, Esq.	10	0	0
Sir S. E. Palmer, Bt.	21	0	0
Dr. C. S. Pantin	5	5	0
Mrs. Parke (per collection)	5	18	0
R. J. Parr, Esq.	5	0	0
Mrs. Parry-Jones (per collection) ...	115	14	3
Dr. A. H. Partridge	5	0	0
Mrs. Pass (per W. M. Mollison, Esq., C.B.E., F.R.C.S.)	10	0	0
Pattenden and Smith	10	10	0
C. V. Payne, Esq., M.B., B.Ch. ...	5	0	0
P. T. Pearce, Esq., L.D.S.	5	5	0
J. C. S. Peatson, Esq., M.R.C.S. (per collection)	6	2	0
Peckham County Secondary School ...	5	5	0
E. C. Peers, Esq., M.R.C.S. (per collection)	15	0	0
Professor Pembrey, M.S., M.D.	20	0	0
H. B. Perkins, Esq., M.R.C.S.	11	7	0
G. and F. Peters	5	5	0
Petty & Co.	5	0	0
Louis Petyt, Esq.	5	5	0
R. E. G. Phillips, Esq., M.R.C.S. L.R.C.P. (balance of collection) ...	14	13	0
Miss M. H. Pickersgill-Cunliffe	5	5	0
Pilkington, Bros., Ltd.	5	5	0
W. H. Pilcher, Esq., J.P., L.D.S., R.C.S.	5	5	0
Dr. G. Newton Pitt, O.B.E.	10	10	0
J. E. Platt, Esq. (per Dr. N. Mutch)...	5	0	0
O. Plowright, Esq. (per collection) ...	11	11	0
Mrs. L. Polden (per Dr. W. Lansdale)	5	5	0
E. W. Poole, Esq. (per S. H. Croucher, Esq.)	5	5	0
Dr. T. B. Poole	20	0	0
Poppleton Gibbs & Co.	5	5	0
Professor and Mrs. E. B. Poulton ...	10	0	0
A. Powell, Esq. (per collection) ...	8	8	0
E. J. Powell, Esq....	5	0	0
T. J. and T. Powell	10	10	0
T. W. Powell, Esq. (per H. Powell, Esq.)	21	0	0
H. L. Power, Esq., L.D.S., R.C.S. (per collection)	13	3	6
Miss Preston (per collection)	6	4	0
L. D. Pringle, Esq. (per collection)...	13	12	0
G. B. Pritchard, Esq., L.D.S.	5	0	0
F. R. Proctor-Sims, Esq., M.R.C.S., L.R.C.P. (per collection)	6	9	0
Miss E. C. Puckle	5	5	0
J. P. Pullin, Esq. (per collection) ...	6	14	6
C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S., (per A. Simpson-Smith, Esq.)	10	10	0
Mrs. P. A. Quilter (per W. H. Ogilvie, Esq., F.R.C.S.)	5	0	0
Ralli, Bros.	10	10	0
Miss B. Ranking (per collection) ...	5	10	0
Arthur di Piavo Rapozo, Esq. (per W. E. P. Phillips, Esq., M.R.C.S.) ...	10	0	0
A. Read, Esq., L.D.S.	10	10	0
R. S. Read, Esq. (per W. J. Curry, Esq.)	5	0	0
J. Magnus Redding, Esq., F.R.C.S. ...	20	0	0
Mrs. Rees-Mogg (per Sir Alfred Fripp, K.C.V.O., C.B., M.S.)...	15	15	0
G. K. Reeves, Esq., M.R.C.S., L.R.C.P.	5	5	0
Remmington & Co., Ltd.	5	5	0
R. J. Reynolds, Esq., M.B., B.S. ...	5	5	0
Captain W. L. Reynolds, R.A.M.C. (per collection)	11	1	0
G. H. Richards, Ltd.	5	5	0
Dr. J. S. Richards (per collection) ...	6	12	0
Mr. and Mrs. W. Richardson	10	10	0
Francis Richmond, Esq., M.B., B.Ch.	5	5	0
J. R. Rickett, Esq. (balance of collection)	22	17	0
Mrs. Riddiford (per Dr. A. F. Hurst)	5	5	0
Mrs. E. C. Riddiford (per Dr. A. F. Hurst. To be added to The Disguysed Minstrels Collection)	5	5	0
Mrs. L. Riddiford (per Dr. A. F. Hurst)	5	0	0
R. W. Robbins, Esq. (per collection)...	6	8	0
Mrs. Roberts (per E. C. Hughes, Esq., O.B.S., F.R.C.S.)	5	0	0
Astley Roberts, Esq., M.R.C.S., L.R.C.P. (per collection)	9	14	0
V. R. Roberts, Esq., L.D.S. (per collection)	10	10	0
Keith Rollo, Esq. (per Dr. A. F. Hurst)	10	0	0
R. Wynne Rouw, Esq., L.D.S.... ...	21	0	0
W. J. Rowland, Esq., M.B.	5	5	0
Dr. H. P. Rowlands	5	5	0
A. E. Rowlett, Esq., L.D.S., R.C.S....	5	5	0
Royal Air Force Stations, Parade Service Collections (per The Rev. R. E. Vernon Hanson)	17	0	0
Royal Naval Hospital Church Collection (per Surg. Rear Admiral Beadnell, R.N.)	5	5	0
Sir Charles H. Rushont (per F. P. Whitbread, Esq.)	5	0	0
Dr. G. W. Russell (per Dr. F. G. Gibson)	5	0	0
Dr. J. W. Russell	5	0	0
The Right Rev. H. E. Ryle, Dean of Westminster	10	0	0
Lt.-Col. S. A. Ruzzak, I.M.S. ...	5	5	0
S.S. White Company of Great Britain, Ltd. (per S. H. Croucher, Esq.) ...	10	10	0
Mrs. St. George (per W. M. Mollison, Esq., C.B.E., F.R.C.S.)	5	5	0
St. Mary Magdalen Lodge, No. 3161...	5	5	0
St. Matthews Church, New Kent Road (per the Rev. T. P. Stevens—collection)	5	16	10
Salomon Centre Collection (per Sister)	5	11	7
Sir David Salomons, Bart.	5	5	0

	£	s.	d.
Dr. D. W. Samways	5	5	0
Dr. J. W. Sandoe (proceeds of Whist Drive)	14	0	0
F. P. Sarjant, Esq., M.B. (per collection)	15	15	0
R. C. Satchell, Esq. (per collection)	7	14	6
Schrader, Mitchell & Weir	5	5	0
Mrs. B. M. Scott	10	0	0
Mrs. Seabrooke ("In memory of Dr. Alec Seabrooke")	10	0	0
Mrs. Selby (per R. P. Rowlands, Esq., O.B.E., M.S.)	5	0	0
Selmes, Jackson & Gulland	5	0	0
L. F. Seymour, Esq. (per collection)...	10	2	0
H. Sharpe, Esq., M.R.C.S., L.R.C.P.	6	0	0
G. D. Shaw, Esq. (per collection) ...	5	10	0
B. Shayer, Esq. (per Dr. H. French, C.B.E.)	5	5	0
E. W. Sheaf, Esq., M.B....	10	0	0
C. Shields & Co.	5	5	0
C. H. Shilling, Esq. (per collection)...	10	7	4
Dr. F. E. Shipway (additional donation)	10	0	0
J. S. Shoveller, Esq., L.D.S.	5	5	0
F. N. Sidebotham, Esq., M.R.C.S., L.R.C.P.	15	0	0
John Siderfin & Co.	5	0	0
T. Silvester, Esq. (per collection) ...	5	0	1
A. Simpson-Smith, Esq., (per collection)	7	6	0
Sir Harry Ross Skinner (per Dr. A. F. Hurst)	5	5	0
A. E. L. Slazenger, Esq. (per Dr. J. Fawcett)	10	10	0
D. A. Smallshaw, Esq. (per collection)	20	0	0
Dr. H. D. Smart, M.C....	5	0	0
Colonel B. A. Smith, D.S.O., M.C. (per F. P. Whitbread, Esq.)	5	0	0
C. M. Smith & Sons	5	5	0
Mr. and Mrs. J. F. Smith (per P. Turner, Esq., M.S.)	5	5	0
L. Muir Smith, Esq.	5	5	0
T. H. Smith, Esq., M.R.C.S., L.R.C.P.	5	0	0
T. M. Smith, Esq., M.R.C.S., L.R.C.P.	10	0	0
Southern Railway Audit Accountant and Staff	21	18	6
A. L. Spencer-Payne, Esq., M.R.C.S., L.D.S. (per collection)	11	11	0
A. H. Spicer, Esq., M.C., M.B., B.S. (per collection)	13	0	0
H. J. Spon, Esq., M.R.C.S., L.R.C.P. (per collection)	5	5	0
Aubery Spurling, Esq. (per Sir Alfred Fripp, K.C.V.O., C.B., M.S.. "In loving memory of my old friend, Horace Bruce Marriott (Trojan)")	5	5	0
E. E. Spyer, Esq. (per Dr. N. Mutch)	5	0	0
R. Stacey, Esq. (Proceeds of a Dance held on January 9th, per S. A. Scorer, Esq.)	15	0	0
R. C. W. Staley, Esq., L.D.S.	10	10	0
Startin & Co., Ltd.	5	5	0
G. Stead, Esq. (per Dr. J. Fawcett) ...	10	10	0
Horace Steinbach, Esq., M.R.C.S., L.R.C.P.	5	5	0
Steinfield, Colle & Co., Ltd.	5	5	0
C. H. Stevens, Esq., L.D.S. (per collection)	5	1	0
A. Stevenson, Esq. (for Rotherhithe Men's Own Band)	22	14	10
Professor Adrian Stokes, O.B.E. ...	25	0	0
G. V. Street, Esq. (per F. N. Doubleday, Esq., L.D.S.)	5	5	0
Col. M. Sunderland	10	0	0
Leopold Sutro, Esq. (per W. H. Ogilvie, Esq., F.R.C.S.)	20	0	0
J. Sutton, Esq. (per collection)... ...	5	0	0
Swann & Co.	5	5	0
Mrs. Swire (per Dr. A. F. Hurst) ...	10	0	0
Mrs. F. W. Sykes (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.) ...	5	0	0
Mrs. J. Sykes (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.) ...	5	0	0
Sir Charters Symonds, K.B.E., C.B., C.M.G., M.D. (additional to £100 previously acknowledged)	100	0	0
Tabrum & Son	5	5	0
The Right Rev. Bishop Talbot, D.D.	5	5	0
W. B. Tanner, Esq., J.P. (per S. H. Croucher, Esq.)	5	5	0
E. H. Targett, Esq. (per W. K. Targett, Esq.)	5	0	0
W. H. Targett, Esq. (per W. K. Targett, Esq.)	5	0	0
W. K. Targett, Esq. (balance of collection)	10	14	6
Gilbert J. Taylor, Esq.	5	5	0
Dr. Johnson Taylor (per Dr. A. F. Hurst)	5	5	0
Joshua Taylor, Esq.	10	10	0
Samuel Taylor & Sons	5	5	0
Tebbett Bros., Ltd.	5	5	0
C. Tennant, Sons & Co., Ltd. (per W. J. Curry, Esq.)	21	0	0
Trustees of the Late Henry York Tennant, Esq., (per Dr. E. H. Greaves) ...	50	0	0
"The Sevenoaks Players"	5	0	0
Lt.-Col. C. E. Theobald	10	0	0
Stanley E. Theis, Esq. (per collection)	20	0	0
Dr. E. Rae Thomas (per Surg. Rear Admiral Beadnell, R.N.)	5	5	0
Dr. E. Rae Thomas (per collection) ...	5	14	6
Sir Herbert Thompson	10	10	0
R. H. Thompson & Co.	10	0	0
W. A. Thompson, Esq. (per J. McNair, Esq.)	5	0	0
J. M. Thorne, Esq., M.R.C.S., L.R.C.P.	5	0	0
Mrs. Thorpe (per F. J. Nicholls, Esq., M.B., B.Ch.)	10	0	0
Mrs. Tidswell (per T. Bird, Esq., M.R.C.S.)	5	0	0
Miss A. Tidswell (per T. Bird, Esq. M.R.C.S.)	5	0	0
Miss E. A. Tidswell (per T. Bird, Esq., M.R.C.S.)	5	0	0
R. H. Tidswell, Esq. (per T. Bird, Esq. M.R.C.S.)	10	10	0
E. A. Tomes, Esq., L.D.S.	5	0	0
John C. Tomlinson, Esq.	5	0	0
R. R. Traill, Esq., M.R.C.S., L.R.C.P. (per collection)	21	6	0
H. Trengrouse & Co. (per J. E. Morton, Esq.)	5	5	0
S. R. Trick, Esq. (per collection) ...	9	13	0
T. R. Trounce, Esq., M.R.C.S., L.R.C.P. (per collection)	7	14	0
E. Turk, Esq. (per Dr. N. Mutch) ...	5	0	0
Turner & Co.	5	5	0

	£	s.	d.
A. J. Turner, Esq. (per P. Turner, Esq., M.S.)	5	0	0
F. Douglas Turner, Esq. (per collection)	10	10	0
Mrs. Sidney Turner (per S. H. Croucher, Esq.)	10	10	0
Sydney G. Turner, Esq. (per P. Turner, Esq., M.S.)	5	5	0
W. A. Turner, Esq., M.R.C.S., L.R.C.P.	5	5	0
Turney Bros., Ltd.	10	0	0
Turquand, Young & Co. (per W. J. Curry, Esq.)	10	10	0
Turtle and Pearce	10	0	0
Type, Press and Material Manufactory	5	5	0
Miss L. B. Vacher	5	0	0
Henry Van Den Bergh, Esq.	5	5	0
Dr. and Mrs. J. E. Van Der Merwe (per collection)	6	6	0
D. Vaughan, Esq., M.R.C.S. (per collection)	12	0	0
Miss J. Vaughan (per R. P. Rowlands, Esq., O.B.E., M.S.)	5	5	0
B. B. Voss & Sons	5	5	0
P. H. Wade, Esq. (per R. C. Bonsor, Esq.)	10	10	0
Mr. Wallace (per collection)	6	13	11
F. Wallace, Esq. (per C. D. Pye-Smith, Esq., D.S.O., M.C., F.R.C.S.)	5	0	0
Cyril Walls, Esq. (per S. Meacock, Esq.)	5	0	0
Walworth-Munzing, Ltd.	5	5	0
Mrs. Warner (per Dr. A. F. Hurst)	5	0	0
C. Warner, Esq., M.B., B.Ch.	20	0	0
Miss M. Warner	5	0	0
Thos. Warr & Sons, Ltd.	5	5	0
A. Warren, Esq. (per collection)	12	9	3
F. C. Warwick, Esq.	10	10	0
Miss C. P. Waterer (per H. L. Eason, Esq., C.B., C.M.G., M.S.)	10	0	0
Miss G. Watkins	10	10	0
Mrs. Watts (per Miss Beckwith)	5	0	0
Montague Way, Esq. (proceeds of Whist Drive)	23	6	6
Miss Webb (per collection)	11	18	10
H. Webb, Esq., M.R.C.S., L.R.C.P. (per collection)	11	18	0
H. C. Webb, Esq. (per Dr. J. Fawcett)	5	5	0
W. Weddell & Co., Ltd.	10	10	0
V. W. L. Wells, Esq. (per collection)	21	13	0
Dr. A. E. Western (per E. H. Roche, Esq.)	10	0	0
H. J. Westlake, Esq., M.R.C.S. (per collection)	11	13	0
Wheeler & Co. (London), Ltd. (per Dr. J. J. Conybeare, M.C.)	5	5	0
Major C. Wheeler, O.B.E. (per Dr. J. Fawcett)	5	5	0
S. J. Wheeler, Esq., (per collection)	8	5	6
George Whichelow, Ltd.	10	10	0
J. Whitbread, Esq. (collections to date, taken on visiting days)	490	9	8
Arnold and Henry White (per W. J. Curry, Esq.)	5	5	0
D. B. Whitlock, Esq. (per collection)	12	1	0
Whittard, Crisp & Co., Ltd.	10	10	0
S. Wickenden, Esq., M.R.C.S., L.R.C.P. (per collection)	10	0	0
Wickham's, Ltd. (per W. D. Doherty, Esq., F.R.C.S.)	5	5	0
J. C. Wilkinson, Esq., M.R.C.S., L.R.C.P.	10	10	0
T. H. Wilkinson, Esq., L.D.S. (per collection)	5	5	0
Mrs. C. M. Williams (per T. Bird, Esq., M.R.C.S.)	5	0	0
Lt.-Col. Sir Rhys Williams, Bt., D.S.O., M.C. (per F. P. Whitbread, Esq.)	5	5	0
W. W. Williams, Esq., L.M.S.S.A.	20	0	0
A. Williamson, Esq. (per F. P. Whitbread, Esq.)	20	0	0
Dr. A. Wills (per collection)	8	0	0
W. Wilmore, Esq., L.D.S. (per collection)	6	4	6
D. Landale Wilson, Esq. (per Dr. A. F. Hurst)	21	0	0
F. W. Wilson, Esq. (per collection)	15	15	0
J. H. E. Winston, Esq. (per collection)	5	0	0
J. G. Wiseman, F.R.C.S.	10	10	0
Alfred Withers, Esq. (per R. P. Rowlands, Esq., O.B.E., M.S.)	5	5	0
W. R. Wood, Esq., L.D.S.	5	5	0
Woollston & Son	10	10	0
Worlds Stores, Ltd.	5	5	0
Mrs. Worthington (per P. Turner, Esq., M.S. "In gratitude of relief received at Guy's, and in memory of her Uncle, Sir Samuel Wilks, Bt."	5	5	0
H. H. Wright, Esq., M.R.C.S., L.R.C.P.	5	5	0
Kenneth Wright, Esq. (per collection)	6	14	11
W. Young, Esq.	5	5	0
Sir William Younger	10	0	0
Lady Younghusband	5	5	0

Notice to all Collectors.

THE Treasurer would be grateful if all Collectors on behalf of the Bicentenary Appeal would send in their collections by the end of this month. There are a great number of collecting cards, books and boxes still distributed amongst old Guy's men and other friends of the Hospital, and the Treasurer is anxious that these should be sent in as soon as possible before June 30th next.

The Bicentenary Appeal will still remain open and contributions will always be gratefully received by the Counting House, but a full detailed list of all donors and collectors will be published shortly, including all amounts received on or before June 30th next.

In those cases where old Guy's men were kind enough to send a post card expressing their willingness to try to collect for the Appeal a special letter has been sent. The Treasurer hopes, however, to hear from every Guy's man before the end of the month with some little donation to their old Hospital, however small.

On Death Certificates and Mortality Returns.

I HAVE been looking through my Death Certificates for the past 10 years and thought they might be of some interest.

This is mainly a working class practice and most of my patients have to work hard at laborious occupations. It struck me how very unsatisfactory the present system is, and how valuable a post-mortem would be in many cases.

I have lately had two cases which illustrate this point. The first was a woman who was suffering from some obscure pyrexia and was sent into the hospital as a case of Continued Fever, Enteric? At the post-mortem we found it was a case of Ulcerative Endocarditis with extensive vegetations on the endocardium, but missing the valves; hence no murmurs.

The other case was a man sent in as a case of Encephalitis Lethargica. Wassermann tests and Spinal puncture were negative. The post-mortem showed a breaking down Glioma in the Temporo Sphenoidal lobe.

Someone remarked in the *Guyoscope* that p. m. meant physician' mistake and he was not far wrong.

At present it is almost impossible to do a post-mortem in private practice and the public would at once construe such a request as a confession of ignorance and in a private house it is a painful ordeal for the relatives.

If there were a well appointed mortuary in every town where the body could be removed and returned at the public expense it would be a great gain to medical research and the public would be gradually educated as to the advisability and importance of knowing the exact cause of death.

I remember when at Guy's often seeing Sir Samuel Wilks, many years after his retirement, visiting the post-mortem room and never satisfied in his thirst for knowledge.

I have added some mortality returns for London in the years 1665 and 1714, and can imagine the profession in 2025 regarding my returns with the same feeling that we have to those of 250 years ago and saying "What profound ignorance."

DEATH CERTIFICATES ISSUED 1915—1924.

Phthisis	36
General Tuberculosis	7
Tubercular Meningitis	3
Bronchitis	34
Pneumonia	21
Influenzal Pneumonia	24
Heart Disease	20
Angina Pectoris	1
Cerebral Hæmorrhage	21
Senile Decay	33
Cancer	32
Liver	5
Stomach	6
Rectum	8
Uterus	4
Breast	5
Cerebral	1
Œsophagus	1
Premature Birth	13
Gastro Enteritis	4
Diabetes	6
Myxœdema	6
Bright's Disease	2
Leucocythæmia	1
Myelitis	2
Epilepsy	1
Paralysis Agitans	2
Rheumatoid Arthritis	2
Meningitis (Suppurative Otorrhœa)	1
Gall Stones	1
Cirrhosis	1
Gastric Ulcer	1
Carbuncle (post Influenzal)	1
Diphtheria	3
Cramp	1
Placenta Prævia	2
Uræmic Eclampsia	1
Puerperal Septicæmia	1
Convulsions	1
Congenital Syphilis	1
Appendicitis	1
Measles	7

It is gratifying to see a great diminution in cases of Gastro Enteritis and I am sure the Maternity Clinic is doing good work.

Practically all Appendicitis cases are sent to hospital, where the results are excellent.

Three of the maternity deaths occurred within a few days and I began to think my luck was dead out. I remember in one case of Placenta Prævia the Uterus was well contracted and the patient left in an apparently good condition under ergot. There was a violent secondary hæmorrhage some hours later and she

died almost instantaneously. I think Pituitrin would have saved her, but I do not think it had been discovered. The Uræmic Eclampsia case was unconscious from the time I first saw her, she had been told to bring up a specimen but had not done so, and I found afterwards she had nearly lost her life from Uræmia at a previous confinement.

The Puerperal Septicæmia case was one where I was not called in for some days after the confinement. The nurse was highly trained and had apparently taken all precautions, and the confinement had been an easy one.

The absence of Cirrhosis cases speaks well for the improved habits of the working classes.

To summarise; the great killing diseases are those of the Lungs, Heart and Circulatory System.

The absence of deaths from Scarlet Fever, Diphtheria and Enteric is accounted for by the fact that most of these cases are sent to the Isolation Hospital.

As M.O. to the Isolation Hospital I have noticed a marvellous diminution in Enteric Cases during the past 10 years.

In 1894 I found an ancient volume containing the Mortality Returns for London in the 17th Century. I sent those for 1665 to the GAZETTE and perhaps they will bear repetition.

Abortives, Still Born	617
Aged	1,545
Ague and Fever	5,257
Bedrid	10
Blasted	5
Bleeding	16
Bloody Flux	185
Burnt and Scalded	8
Calenture	3
Cancer, Gangrene and Fistula	56
Canker and Thrush	111
Childbed	625
Chrisones and Infants	1,258
Cold and Cough	68
Colic and Wind	134
Consumption and Tissick	4,808
Convulsunt Mother	2,036
Distracted	5
Dropsy and Tympany	1,478
Drowned	50
Executed	21
Flox Small Pox	655
Found Dead	20
French Pox	86
Frighted	23
Gout and Sciatica	27
Grief	46
Griping in Guts	1,288
Suicide	7
Headmouldshot	14
Jaundies	110
Imposthume	227
Killed by Accidents	46
King's Evil	86
Leprosy	2
Lethargy	14
Livergrown	20
Megrims and Headache	12
Measles	7
Murdered	9
Overlaid and Starved	45
Palsy	6
Plague	68,596
Pleurisy	15
Poisoned	1
Quinsy	35
Rickets	557
Rising of the Lights	397
Rupture	34
Scurvy	105
Shingles and Swine Pox	2
Sores, Ulcers, Broken and Bruised Limbs	82
Spleen	14
Spotted Fever and Purples	1,929
Stopping of Stomach	332
Stone and Strangury	98
Surfeit	1,251
Teeth and Worms	2,614
Vomiting	51
Wen	1
Total	97,306

In 1664 the total deaths were 18,297, including 6 from the Plague.

In 1666, the year of the Great Fire, the deaths were 13,738, including 1,998 from the Plague.

In 1667—8—9 the deaths from Plague were 35, 14 and 3, while in 1670 no death was recorded.

A few stray cases were observed for the next few years, but about 1678 the disease disappeared.

In 1684 Diabetes was first notified.

I have been trying to find out the meaning of some of these old names.

Dropsy and Livergrown would account for some of the cases of Heart disease.

Blasted: Struck by Lightning.

Calenture: Heat Stroke?

Bloody Flux: Intestinal Hæmorrhage or Metrorrhagia.

French Pox: Syphilis. They returned the compliment by calling it "la Maladie Anglaise."

Pistol, in Henry V., says:

"News have I that my Nell is dead i' the spital of Malady of France."

Headmouldshot: A disease in children in which the sutures of the skull, usually the coronal, have their edges shot over one another and are so close locked as to compress the brain, often occasioning convulsions and death.

Imposthume: Abscess. A reference will be found in Hamlet, act 4, scene 4:

"This is the imposthume of much wealth and peace.
That inward breaks and shows no cause withal,
Why the man dies."

I think the immortal bard meant a ruptured appendix.

King's Evil: Tuberculosis, with external signs especially Cervical Adenitis. The Sovereign was supposed to cure these cases by laying his hands on them, and it is recorded that Dr. Johnson was touched by Queen Anne.

I do not think the Georges went on with the practice.

Planet! is another relic of superstition, and is alluded to in Hamlet, act 1, scene 1:

"The nights are wholesome, then no planets strike."

Griping in Guts: Peritonitis.

Chrisone: An unbaptised infant.

Convulsunt Mother: Uræmic Eclampsia?

Here is another list which was published in the GAZETTE of October 22nd, 1898. It is the Mortality Bill of 550 people who died in London in the year 1714:

Convulsions	136
Dropsie	15
Fever	105
French Pox	3
Griping in Guts	8
Headmouldshot	1
Rising of Lights	1
Small Pox	73
Stopping in Stomach	10
Suddenly	3
Teeth	24
Tissick	4

Junior Guyite Club.

IT will be a great delight to the four surviving original founders of the Junior Guyite Club—H. C. Burton, A. de W. Baker, W. Cock, and J. Rendall—to know that the 50th Anniversary of its foundation was celebrated with great success on Thursday, June 4th, at Oddenino's Restaurant. A well-attended dinner was presided over on this occasion by C. H. Fagge, Esq., F.R.C.S., and in spite of the excessively hot weather, over 50 members and their friends accepted.

Amongst those present were the following—A. Allport, T. Brown, F. Cook, J. J. Conybeare, M. Coplans, H. E. Counsell, C. H. Fagge, E. W. Goodall, A. Green, G. H. Hunt, J. W .F. Jewell, G. Marshall, P. M. May, W. M. Mollison, M. Parry-Jones, E. A. Peters, J. G. Porter Phillips, A. E. Price, C. E. Price, J. A. P. Price, P. N. Randall, R. M. Randell, G. H. Rodman, A. T. Rogers, R. P. Rowlands, J. A. Ryle, C. Sangster, P. Seymour Price, E. W. Sheaf, H. M. Stewart, C. P. Symonds, A. H. Todd, and A. M. Zamora.

In addition the following guests were present—W. Brown, P. W. L. Camps, H. M. Clarke, W. H. Craib, L. E. Fox, N. L. Lloyd, M. Mackenzie, W. G. Nash, R. R. Rowlands, W. R. Reynell, J. H. Ryfell, E. N. Scott, H. J. Westlake, and K. M. Woodruff.

The toast of The King was proposed by the President, who also paid tribute to our Alma Mater in the form of a toast to Guy's Hospital. The latter toast was ably responded to by C. P. Symonds.

In the hands of R. M. Randell, one of the more senior members, the toast of the Junior Guyite Club was placed. Although his knowledge of the Club took us back many years, he proved himself to be as young and as enthusiastic as he must have been when he originally joined the Club.

The Honorary Secretary, Dr. J. G. Porter Phillips, before reading the minutes, drew attention to the fact that it was exactly 50 years ago when a member of his own family in the person of Henry Leader Stevenson, took on

the responsibility of being the first secretary of the Club.

A merry and enjoyable evening was concluded at a very late hour after a musical programme, in which the following figured—Marion Brown (soprano), T. C. Sterndale Bennett, Norman Williams (baritone), Charles Pond (with stories), and Joseph Batten (at the piano). To Mr. Sterndale Bennett our special thanks are due, as once again he came to the Club's aid.

It is very gratifying to learn that the following new members were elected—E. Billing, J. Bramley Ball, W. A. Brown, P. W. L. Camps, H. M. Clarke, W. H. Craib, W. E. Fox, Col. Freemantle, R. Hale White, A. C. Hovenden, G. S. Hovenden, N. L. Lloyd, M. Mackenzie, W. C. D. Maile, C. H. Medlock, W. R. Reynell, J. A. Ruffel, A. Salter, E. A. Scott, J. Simons, T. G. Stevens, T. W. Turner, and J. F. Venables.

International Medical Congress.

THE Fourth Congress in connection with Industrial Diseases and Accidents will be held at Amsterdam from September 7th to 12th inclusive.

The British Committee, amongst others, consists of Sir Thomas Oliver, M.D., Sir Robert Jones, K.B.E., C.B., Sir William Collins, K.C.V.O., Sir K. W. Goadby, K.B.E., Sir William Hale-White, Professor Collis, and other distinguished men. Many distinguished savants from other nations will be present.

Apart from the scientific proceedings of the Congress, there will be among other attractive functions

A reception by the County Council of Amsterdam.

A reception by the Minister of Labour at the Hague.

A trip to the harbours and the surroundings of Amsterdam.

The cost of a ticket to each member will be £15; this includes admittance card to the Congress, return ticket to London (the return journey may be made at the member's own time within one month), room and breakfast in one of the leading hotels in Amsterdam, admittance to the Congress Dinner, official receptions, etc.

Further information can be obtained from the Hon. Secretary, Dr. Herman S. N. Menko, 2, Grosvenor Gardens, Cricklewood, London, N.W.2.

2, Grosvenor Gardens,
Cricklewood,
London, N.W.2.
8th June, 1295.

Dear Sir,

It was decided by my Committee that senior students should be invited to attend the above Congress, which will take place in Amsterdam, in September, 1925.

I shall be obliged if you would put a little announcement in your paper based on the particulars as shown on the enclosed pamphlet. It is naturally felt—remembering my own student days—that the bank balance of some of the students might not be very large, and, therefore, I am prepared, should any of your students wish to come over, to make arrangements for them to stay privately free of charge, so that then there would only be the amount to be paid for the journey and admission ticket to the Congress.

I would like to point out that any students wishing to go over to Holland must join the official party leaving Victoria at 9.15 a.m. on Sunday 6th September, as the special facilities offered cannot be extended to them if they wish to travel on their own.

Thanking you in anticipation for your kindness in putting the notice in your paper.

Yours faithfully,

HERMAN S. N. MENKO,
Hon. Sec., British Committee.

Papers by Guy's Men.

C. S. Lane Roberts, M.S., F.R.C.S. Constipation and Pregnancy.—*Practitioner*, 1925, cxiv., p. 431.

G. B. Dowling, M.D. (1) Urticaria Pigmentosa; (2) Case of Pseudo-Pelade associated with Lichen Planopilaris. (3) Case of (?) Sarcoid.—Proc. Roy. Soc. Med., 1925, xviii., Sec. Dermat., pp. 43, 44, 45

H. W. Barber, M.B. (1) Case of Lichen Nitidus. (2) Scaly Eruption (?) Syphilitic.—*Ibid.*, pp. 45, 46.

N. L. Lloyd, M.R.C.S., L.R.C.P. A Case of Tabes Dorsalis.—*Ibid.*, Sec. Neurology, p. 31.

C. P. Symonds, M.D. Case of Epilepsy for Diagnosis as to Cause.—*Ibid.*, p. 33.

Sport.

Cricket.

1st XI. v. Repton Pilgrims.

Played at Honor Oak Park, and resulted in a win for Guy's by 6 wickets.

Repton Pilgrims.—Total 110.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	21·5	6	47	3
W. H. G. North	5	0	18	0
G. T. Clarke	5	2	13	1
L. W. Houghton	10	2	21	6

Houghton took 4 wickets in 7 balls.

Guy's.

L. S. Williams, b Alliston	3
J. G. Van Schalkwijk, c and b Alliston	45
V. R. Preen, c Shorter b Alliston	18
G. Fellowes-Smith, c R. F. Popham b Shorter	7
A. H. Curtis, run out	92
G. T. Clarke, stumped b Alliston	88
W. H. G. North, c — b Alliston	0
J. C. Hewetson, run out	11
J. D. S. Thomas, c C. Popham b Alliston	12
W. A. Corry, not out	1
Extras	2
Total (for 9 wickets)	279

L. W. Houghton did not bat.

1st XI. v. Crofton Park.

Played at Honor Oak Park, and resulted in a win for Guy's by 9 wickets.

Crofton Park.—1st Innings Total 64.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	11·2	2	30	5
W. H. G. North	11	4	24	5

Crofton Park.—2nd Innings total 73.

Bowling Analysis.

	o.	m.	r.	w.
G. Fellowes-Smith	11·3	3	28	5
L. S. Williams	10	1	41	2
J. C. Hewetson	1	1	0	3

Guy's.

1st Innings.

G. Fellowes-Smith, hit wkt. b Lawton	5
G. J. Horton-Parr, b Bisley	6
W. A. Corry, l.b.w. Dennis	7
W. H. G. North, c and b McLachlan	9
L. S. Williams, l.b.w. McLachlan	17
J. G. Van Schalkwijk, b Tutt	19
V. R. Preen, b Dennis	6
J. C. Hewetson, l.b.w. Dennis	7
W. Ruzzak, not out	20
C. E. P. Davies, c Grierson b Tutt	2
E. E. Evans, c Grierson b Wright	9
Extras	8
Total	115

2nd Innings.

W. Ruzzak, b Lawton	16
E. E. Evans, b Lawton	14
V. R. Preen, c and b Lawton	9
J. C. Hewetson, c Gooding b Tutt	6
G. Fellowes-Smith, b Tutt	23
G. J. Horton-Parr, not out	23
W. H. G. North, st. Vickars b Dennis	6
C. E. P. Davies, c Lawton b Dennis	0
W. A. Corry, b Dennis	0
J. G. Van Schalkwijk, b Dennis	17
L. S. Williams, c Grierson b Tutt	24
Extras	4
Total	142

1st XI. v. Chelmsford.

Played at Chelmsford, and resulted in a win for Guy's by 70 runs.

Guy's.

E. J. Pye-Smith, l.b.w. P. W. Turrall	20
L. S. Williams, b P. W. Turrall	40
L. Catchpole, c Flower b W. G. Turrall	26
J. G. Van Schalkwijk, c and b W. G. Turrall	43
G. Fellowes-Smith, b W. G. Turrall	4
A. H. Curtis, c and b W. G. Turrall	3
G. T. Clarke, c P. W. Turrall b W. G. Turrall	18
V. R. Preen, c Reeve b W. G. Turrall	40
L. W. Houghton, not out	36
W. H. G. North, c and b W. G. Turrall	25
G. Martijn, b Blooman	1
Extras	15
Total	271

Chelmsford.—Total 201.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	18	6	69	0
L. W. Houghton	20	5	43	3
W. H. G. North	9	1	26	1
G. Fellowes-Smith	8	1	20	4
G. T. Clarke	4·5	1	28	2

1st XI. v. Catford Wanderers.

Played at Honor Oak Park, and resulted in a win for Guy's by 7 wickets.

Catford Wanderers.—Total 80.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	11	4	23	2
J. Durr	10	1	32	1
L. W. Houghton	5	2	9	2
W. H. G. North	4	1	7	4
G. Fellowes-Smith	0·5	0	1	1

Guy's.

E. J. Pye-Smith, c Everitt b Laurence	49
L. S. Williams, b Laurence	0
L. W. Houghton, b Henderson	4
J. G. Van Schalkwijk, l.b.w. b Laurence	1
G. Fellowes-Smith, b Henderson	61

A. H. Curtis, b Henderson	9
J. Durr, run out	0
V. R. Preen, not out	30
W. H. G. North, b Henderson	0
S. R. Trick, b Henderson	3
R. L. Cautley, b Nicholls	6
Extras	29
Total	192

Hospital Cup, 2nd round.
1st XI. v. St. George's.

Played at Honor Oak Park, and resulted in a win for Guy's by 8 wickets.

St. George's batted first on a fast, but rather lively wicket. Both Van Schalkwijk and Durr bowled very well, and at one time the score was 6 runs for 4 wickets.

Baxter, who hit hard, and Bridgeman put on 34 for the 5th wicket, but once they were out no one else stayed for long. The bowling and fielding were good all through the innings.

When Guy's went in Pye-Smith left to his first ball, and in the first over there were 4 wides. Dewes made a second catch to dismiss Williams at 42, both catches being good. The St. George's total was passed for the loss of 2 wickets by lunch time. After lunch the rate of scoring was fast. Nearly everyone made runs.

Catchpole played very well till he ran himself out. Curtis and Durr both hit very hard and Van Schalkwijk, Fellowes-Smith (who is now batting very well and with more restraint) and Houghton all made useful scores, the total reaching 311.

St. George's batted for an hour at the end of the day, scoring 88 for 5. The only noteworthy incident was the bowling of Fellowes-Smith, who in 5 overs took 4 wickets for 2 runs.

The return of Durr has very much strengthened the side. A. G. Ensor was unfortunately unable to play.

St. George's.

M. K. Braybrooke, b Durr	2
G. C. Dewes, l.b.w. b Van Schalkwijk	1
R. H. Baxter, c Durr b Van Schalkwijk	27
M. F. Nicholls, c Pye-Smith b Durr	0
G. K. Taylor, st. Pye-Smith b Durr	0
G. J. O. Bridgeman, c Fellowes-Smith b Durr	13
H. G. Taylor, b Durr	0
B. H. Burn, b Van Schalkwijk	3
G. G. Plumstead, not out	8
J. N. Lewis, b Van Schalkwijk	0
J. D. Bailey, b Van Schalkwijk	0
Extras	4
Total	58

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	12·5	6	15	5
J. Durr	12	0	39	5

Guy's.

E. J. Pye-Smith, c Dewes b Plumstead	0
L. S. Williams, c Dewes b Plumstead	15
L. Catchpole, run out	58
J. G. Van Schalkwijk, c and b G. K. Taylor	22
A. H. Curtis, c Braybrooke b Plumstead ...	61
G. Fellowes-Smith, c and b Plumstead	28
J. Durr, st. Braybrooke b Dewes...	56
G. T. Clarke, c and b Bridgeman...	2
V. R. Preen, b G. K. Taylor	12
L. W. Houghton, not out	26
W. H. G. North, c and b Bridgeman	6
Extras	25
Total	311

Swimming.

AFTER a somewhat inconspicuous start, the prospects of developing a good swimming and water polo team this season are quite promising.

Our first match, against St. Paul's School, was very disappointing. Playing without the assistance of Brown and Malone we were beaten at water polo by 3 goals to one (Jones), and were overwhelmed in the swimming races by the superior fitness of our opponents.

The following week a game v. Otter "A" was more encouraging with Brown playing centre half and Malone at back. The combination of the team was excellent and the shooting good. We won by four goals (Brown 1, Jones 1, Theis 2) to nil.

At Oxford we were beaten by the University six goals to two (Brown). It was a poor game, the narrow bath and shallow water combating good water polo. Jones swam a fine race in the 100 yards, dead-heating for first place, with the Oxford first string, and Malone was third, a yard behind. Theis won the quarter mile by a tough and de Gruchy was second in the 50 yards.

At Forest Hill, the match v. Grafton resulted in a draw of two goals each (Brown and Jones). The score accurately represented a very fast game.

Against Cambridge, we were beaten at water polo by six goals to nil. Brown was unable to make the journey and the consequent alteration of positions somewhat upset the combination of the team. The 100 yards resulted in a fine race, Malone being beaten by a touch with Jones just behind. De Gruchy

was second in the 50 yards and Theis was beaten by 4 yards in the quarter mile.

On May 26th, a last minute fixture with Dublin University resulted in an easy win by 5 goals (Brown 1, Jones 1, Theis 3) to nil. The Team race was won by 4 yards. In the evening the return match v. Otter "A" was won by 1 goal (Theis) to nil. The Otter hoped to avenge their previous defeat, but were unable to cope with the speed of our men. Brown was unlucky with several shots that hit the cross-bar, and gave a good pass to Theis, who was unmarked and scored an easy goal just before the whistle blew for time.

The Annual Gala of the United Hospitals Swimming Club will be held at the Bath Club on Monday, June 29th, at 8 p.m. The number of tickets available is unfortunately very limited and application should be made in writing as soon as possible to S. E. Theis.

The heats for the finals at the Bath Club were held on June 17th. C. de Gruchy won his heat in the 50 yards, Malone and Jones qualified for the final in the 100 yards, as did Daphin and Theis in the 220 yards. Marsh and J. D. S. Thomas will dive against London in the final.

After an easy win v. King's College Hospital at water polo on Tuesday, we now meet U.C.H. in the final, and a very close game is expected.

The "Gazette" Boat Club Fund.

IN the last number of the GAZETTE, we mentioned that it was hoped to send a Hospital "Eight" to one of the up-river regattas this summer, and the Rowing Club has now decided to enter for the Junior "Eights" at the Marlow Regatta. This decision will be learned with general satisfaction and, in order to make it financially possible, the GAZETTE Committee has opened a Boat Club Fund, for the purpose of covering the expenses involved in purchasing oars for the crew and in taking the boat to Marlow. We therefore invite subscriptions to this fund, which the GAZETTE Committee is starting with a donation of ten pounds. The total expenses are expected to be about four times that amount, the oars alone costing twenty-five pounds. We shall be pleased to receive donations from anyone, who wishes to encourage this enterprise of the Rowing Club. The "Eight" have proved themselves worthy of your support and we confidently expect the growth of this fund to be worthy of the Rowing Club.

Hospital Information, etc.

Pass List.

University of London.

3rd M.B., B.S. Examination for Medical Degrees.

May, 1925.

P. C. Bennison.
T. S. Blacklidge.
W. G. Booth.
R. Brooke.
H. G. Close.
N. L. Lloyd.
W. G. Sears.

Group II.

M. F. Butler.
A. A. Dalby.
J. Jemson.
W. G. Roberts.
J. Sellick.
M. B. Seng.
J. D. S. Thomas.

Change of Address.

Robley H. J. Browne, Surg. Capt. R.A.M.C., R.N., retired, Beach Grove, Ascot, Berks.

J. .K Milward, Union Buildings, Hong-Kong, China.

Appointments.

F. R. Hogbin, L.D.S. Eng., Honorary Dental Surgeon to the Bristol Homeopathic Hospital, Bristol.

Publications Received.

The Isis, The British Medical Journal, The Nursing Times, The Dental Record, The Prescriber, Oral Health, The St. Bartholomew's Hospital Journal, The Sphinx, The Long Island Medical Journal, The St. Thomas's Hospital and Syphilis, The St. Mary's Hospital Gazette, The Indian Medical Record, The Antiseptic, The King's College Review, The Medical Journal of Australia, The Canadian Medical Association Journal.

Notice.

Treasurer's Gold Medal for Clinical Medicine.

The following awards have been made:—

Gold Medal.—D. W. C. Northfield.

Certificate.—S. V. Strong.

Birth.

CAMPBELL.—On June 12th, 1925, at 41, Pope's Grove, Twickenham, to Mary (née Chrimes), wife of Dr. J. M. H. Campbell, a daughter.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

RESISTING temptations has a fascination of its own. It gives to the resister a moral uplift, that is in no way spoiled by the final surrender. On the other hand it is some slight compensation should the surrender be prevented by the lack of insistence on the part of the tempter. This is only one of the reasons for the temporary strong-mindedness of many, there are undoubtedly others. But against one temptation, which is universal, there is no resistance offered at all and that is the temptation of an excuse for "dressing-up." This is the most popular amusement of modern times and one of the most innocent. It is common to every branch of the human race and no section of civilised society neglects it. It is not even confined to the sane, for some of its most ardent adherents are found in our asylums. The degree of dressing-up varies. There are some tribes, splendid in their simplicity, among whom "dressing-up" consists of an extra layer of white clay on the body or of an unusually heavy piece of bone through the nasal septum, but, among the less splendid but more resplendent, nations, the process varies according to the degree of education or opulence of the people. The lower degrees are satisfied with an intersexual exchange of hats on the heath on bank-holidays, the middle degrees require a more complete change of clothing, usually under the name of "charades," while the higher degrees let themselves go entirely, black their faces or powder their hair and appear as anything but their own real selves at carnivals and fancy dress dances. There is great satisfaction in each style. Clothes do not necessarily make the man, but they do a great deal to lighten his spirits. In Australia there is a class of man, technically known as a "sun-downer," of whom it is said that he is always at home, when he has his hat on, but to each sun-downer there are hundreds of moon-shiners, who feel pleasantly at sea whenever they have somebody's else's hat on. There is a care-free, happy-go-lucky atmosphere, that exists beneath the brim of the other person's hat, to which one's own hat is a stranger. Under its

influence one becomes filled with feelings of joyfulness, of good-fellowship, almost, if one may use the word, of behatitude. It is this influence of the feelings that is responsible for "dressings-up" of all descriptions.

This peculiar amusement is sought by all, so that it is no surprise to find that it is indulged by the very highest degrees, what we might well call the intellectual or University degrees. Here the process consists of the donning of gowns of brilliant colours, ermine trimmed and crowned with hats of coloured velvet. It is regrettable that this blaze of colour is thrown across the drab sea of serge and tweed so seldom and no one, who was present at the Garden Party last Monday, will forget the brilliance of the many graduates. The fearless blending of every component of the solar spectrum was a direct incentive to the young student to work day and night for his degree. Nor did the splendour of the gowns detract at all from the expressions of deep learning of their wearers. At the various lectures of the Conjoint Colleges the Lecturer and Members of the Councils invariably wear their brightest gowns and why should not this picturesque custom be followed by the Medical Schools? Helmholtz's theory of colour vision would be more comprehensible to the student of physiology when expounded by a lecturer in crimson and purple. If for no other reason than its bright colours, the Garden Party was a glorious success and the sun poured down on the brilliant assembly, whose ever-changing pattern had as its centre-piece the band-stand canopy, fashioned for all the world like the tall, pointed hat of a clown.

We congratulate very heartily Mr. D. W. C. Northfield on winning both of the Treasurer's Gold Medals for Medicine and Surgery as well as the Beaney Prize for Pathology. These three distinctions have not been won by the same man since 1895, when Mr. F. J. Steward gained them and only once more has the feat been performed, when Mr. J. H. Bryant won all three prizes in 1890.

The Boat Club wish to thank those members of the Staff who so kindly contributed towards the purchase of a new set of oars and also the Gazette Committee, who have started a Boat Club Fund, thus making possible their entry at Marlow Regatta.

Guy's Hospital Bicentenary Appeal.

IT was pointed out in the last issue that the Bicentenary Appeal still remains open and that the Treasurer would most gratefully receive any donations towards this fund at any time. Collections and donations were particularly asked to be sent in to the Treasurer for the purpose of completing the list of donations which will be published shortly and which will comprise the total amount collected in one year. There are still a number of collections which have not been received, and the Treasurer once more asks all those who have not yet given to send in their donations or collections as soon as possible.

Mrs. Ripman and Miss Greenwood gave a most excellent Matinee Dansante at the Scala Theatre on Saturday, May 23rd, last. The matinee comprised dancing of all kinds by the students and pupils of the Croydon School of Dancing, and the proceeds were devoted to the Bicentenary Appeal.

Mrs. Ripman and Miss Greenwood are to be congratulated on contributing as much as £76 16s. 3d. to the Appeal as the result of this matinee.

This is not the first time Mrs. Ripman and Miss Greenwood have given the proceeds of similar matinees to the Hospital Funds, and it is sincerely to be hoped it will not be their last.

The Scala Theatre was quite full on this occasion, and Dr. Fawcett was kind enough to say a few words on behalf of the Appeal and the cause of our debt.

Judging by the keen enjoyment and enthusiasm of the audience it is hoped Mrs. Ripman will give another matinee next year, when those who were unable to come this year could make special arrangements to go.

The Physiology of Sleep.

Paper read to Guy's Hospital Physiological Society by W. FERGUSSON HANNAY, 11th November, 1924.

MR. CHAIRMAN and GENTLEMEN,—Before proceeding to a study of the Physiology of Sleep we should attempt to get a definite idea of what we mean by the word "Sleep." An attempt to define sleep is almost as easy as an attempt to define life We can only try to draw up some mutual agreement as to how we are going to regard the phenomenon sleep. If we define sleep as "a suspension of sensory-motor activities that bring the living being into relation with its environment," or "as the inactivity of the nervous system, more especially the brain and the spinal cord" we are assuming that the other tissues of the body do not take part in sleep. This, as we shall see later, is not strictly true. Since, however, the brain and the spinal cord are the parts most affected by sleep, we are to a great extent justified in confining sleep to these centres.

Durham's definition "Sleep is a state in which volition, sensation and consciousness are suspended, but can be readily restored upon application of some stimuli" is very satisfactory in that it prevents coma, anæsthesia and hypnosis from being included under normal physiological sleep. If we accept Durham's definition we are forced, however, to define "consciousness." Consciousness is a state of "awareness" or perception, but of how much is the mind capable of being aware at one time? At one time the mind is capable of thinking of one thing and one thing only. How many of you appreciated the pressure of your left leg on the floor until I drew your attention to it? Yet the sensation is there all the time. Our body is receiving literally hundreds of different stimuli, which are being adequately dealt with, although we ourselves are unaware even of their presence. Yet we only need to draw our attention to them to become conscious of them. The mechanism dealing with these stimuli we may call the subconscious mind. When we are walking along a road, thinking of what we are going to say to the person we are about to visit, completely unconscious of our surroundings, it is our subconscious mind assisted by our eyesight which is leading us safely past obstacles. When from the phenomena of full conscious and sub- or semi-conscious states we pass to the phenomena of unconsciousness, the ambiguity of this expression is obvious. We may define unconsciousness as a state when we are not aware or not conscious, in a state of no mental activity. This is really the same as subconsciousness and there can be no state of real unconsciousness, that is a complete indifference to one's surroundings, except at death. We may be in a subconscious or semi-conscious state, but never unconscious.

There are, however, degrees of consciousness as opposed to subconsciousness. Herzen in his brilliant description, which I am just going to read, of the last phase of syncope or rather the subsequent return of consciousness says:—

"During the syncope there is absolute psychic annihilation, the absence of all consciousness; then at the beginning of coming to, one has at a certain moment a vague limitless, infinite feeling—a sense of existence in general without the least trace of distinction between the 'me' and the 'not me'—one is conscious indeed of existing, but not of one's organic unity nor of its limitations. Such is the first phase of returning consciousness—here is the second. Amid the indefinite consciousness of the first phase, vague and obscure differences emerge little by little. One begins to see and hear, but the sounds and colours seem to arise within the subject with no idea of their external origin, no link between the various sensations perceived or felt. Each sensation is felt separately, and the whole produces an inexpressible confusion. At this moment the sensory centres have recovered sensibility, but are sensible only of the impressions reaching them directly without: reflex action is not yet established, there is still no combination of sensations into perceptions, and therefore no distinction between the me and the not-me; in a word the sensations are stupid, if one may so express it, because they are isolated—they can only be felt and are not known. In the next phase central reflex action is re-established; the various sensations begin to influence one another, to be reciprocally determined, defined

and localised. Several sensory centres unite in the sensorium commune and self-consciousness emerges; but at first it is only an unintelligent feeling, which merely expresses the fact of the organic unity of the subject and is not a clear notion of the relations with the environment. At this point I felt I was I, and that the auditory and visual sensations came from objects that did not form part of me, although I did not yet understand them. The cortical centres, which are the first to suffer and the last to recover their functional integrity, had not yet recovered.

"Then at a given moment, after the recovery of nutrition the mind suddenly grasps the situation, and the thought arises 'Ah, I have fainted.' Then from that moment the intellect is completely re-established and takes the direction from which it had been momentarily diverted by insufficient nutrition."

Having got some idea of what we recognise by the terms sleep and consciousness, we can now proceed to examine the physiological changes which occur during sleep. Sleep seems to bring about a decrease of the processes which are used for active life. The vascular system presents a series of definite and pronounced changes. The vaso-motor sympathetic nervous system seems to assume command and produces a definite slowing of the heart and pulse rate. There is a fall in the body temperature. The axillary temperature falls to 97·05° F. in winter and 97·45° F. in summer, and is at its lowest at midnight and also at three o'clock in the morning. This nocturnal fall of body temperature is due to a diminished metabolism during sleep, thus giving rise to a reduced thermogenesis. Dr. MacWilliam's recent research has shown that sleep is accompanied by a decrease in the systolic blood pressure. Although some authors have claimed that sleep is caused by the decrease in blood pressure, Dr. MacWilliams emphatically denies such a claim. For when the body is in the recumbent position the influence of gravity, the hydostatic factor of the weight of the column of blood between the levels of the heart and the brain, has been removed. To prevent the pressure in the cerebral arteries from being higher in the horizontal than in the erect position, the aortic pressure must be decreased. When allowance has been made for this purely physical factor, the remaining decrease in blood pressure is of an almost negligible quantity, certainly not large enough to produce sleep. Brooks and Carol tested 39 hypertonic subjects with an average blood pressure of 204 mm. and noted a fall of 44 mm. after 2 hours sleep. Muller found in normal persons a fall to 94 mm. in men and 88 mm. in women during sleep. Bruce noted an increase of blood pressure on the moment of going to sleep then a decrease followed by a gradual increase on awakening. Some people have normally an unusually high blood pressure during the day time and Blume registered a fall of 31 mm. in men and 39 mm. in women as opposed in the normal male and female subjects to a fall of 15 mm. and 21 mm. respectively. Some of the earliest investigators discovered an increase in volume of the extremities due to an increase in the volume of blood in the vessels of the limbs. Whether this increase of blood in the peripheral parts necessarily points to an anæmia of the brain or whether the blood is derived from the viscera; thus being rich in nutritive substances which it can then distribute while the body is resting, is still a matter of dispute. Mosso and others claim that an anæmia of the brain is indicated, and have built up a theory of sleep from it. Respiratory movements are slowed and become wholly thoracic. Inspiration becomes longer and expiration shorter; respiration often becomes intermittent and, even in old people and in children, periodic.

A study of the composition of the air stream of a sleeper shows that the alveolar air expired reaches its greatest volume after the first hour of sleep and then diminishes rapidly. Some authors claim that the exact moment of falling asleep is indicated by a slight peculiar puffing sound made by the breath striking the nostrils. Taken generally, gland secretion is diminished during sleep. A pricking sensation in the conjuntiva and cornea preceding sleep is due to a diminished lachrymal secretion in the eyelids. In the morning many people instinctively rub their eyes, little knowing that by this means they are stimulating their lachrymal glands to secrete a lubricating fluid. Salivary secretion is also diminished, giving rise to that objectionable dry feeling in the mouth so noticeable when one has been sleeping in a train or at a lecture. Gastric and intestinal secretion is also diminished, though what exact relation this diminished secretion has to the slowing of gastric and intestinal peristaltic movements is at present uncertain. This diminished gastric secretion is thought to

be the reason why men and animals frequently vomit first thing in the morning. Secretion of the mammary glands is stopped during sleep.

As opposed to this marked diminution of the secretion of nearly all the glands of the body we have the enormous secretion of the sweat glands. What the exact significance of this increased secretion is, for a man may excrete twice as much perspiration at night as he excreted during the previous day, is not definitely known. It is interesting to note that the secretion of the sweat glands is regulated by the autonomic system, as we shall see later. I see no reason why, as some authors claim, the sweat glands should increase their secretion in order to counteract the lessened secretion of the other glands. Biologically it would be interesting to know whether there is any relationship between this profuse sweating and the fact that a frog during hibernation breathes out three times as much CO_2 through its skin as through its lungs. Are we getting rid of any excess CO_2 by sweating? I know of no chemical evidence in its favour.

There is a marked increase in the amount of solids and phosphates in the morning urine excreted by the kidneys. There is complete relaxation of all the muscles of the body except the sphincters, including the circular fibres of the Iris. This relaxation is preceded in the sleepy state by the drooping of the head due to relaxation of the muscles of the neck and a heavy sensation of the eyelids due to the loss in tone of the levator pulpebræ superiores. These symptoms are often accompanied by yawning, caused by intermittent spasms of the muscles of the lower jaw, and also stretching of the limbs. The loss in muscle tone is accompanied by a diminished tendon reflex, but these reflexes are not entirely lost, as is claimed by Rosenbach and others. The pupils which are acted upon by sympathetic nerve fibres in association with the oculomotor nerve contract and during deep sleep are unaffected by light. Contraction or dilatation of pupils is due to decrease or increase of stimulation of vaso-constrictor nerve of the iris rather than to the relaxation of their antagonistic muscles. During sleep the eyeballs rotate upwards. The pupils will dilate on the application of any strong auditory or sensory stimuli. There is gradual dilatation of the pupil as the sleep becomes lighter followed by a marked dilatation at the moment of waking.

Sleep is preceded by a general dulling of the senses and an obscuration of the intelligence, including a diminished excitability of the cerebral nerve centres and the spinal cord. This is due to the inactivity of the cortical centres rather than to alterations in the peripheral sense organs, the latter being pervious to stimuli during sleep. The nerves do not lose their excitability to the same degree. The sleep to "touch" is light. The sleep to "hearing," which is the last to succumb is excited by small stimuli. Gastatory and olfactory senses sleep "deeply," the sleep of "sight" being the deepest and also the first to succumb.

Lepine and Duval tried to claim amœboid properties for the cortical nerve cells and that during sleep their dendrites retracted. They even stated that by breaking contact between the nerve cells sleep was caused. No such amœboid properties have ever been observed in the histological construction of the nerve cells. Daddi in 1898, and Pieron in 1912, noticed chromatolysis, or deformation of the cell bodies, of the pyramidal nerve cells of dogs, which had been kept awake for any length of time. This chromatolysis, however, disappeared if the dogs were allowed to sleep.

Before leaving the physiological changes in sleep I will just say a word about growth. Although the hair grows more by day than by night, doubtless due to the light and warmth it obtains during the day time, growth in general is more rapid at night than during the day. This is very marked in the early stages of the individual, and also at puberty. We also notice that the gradual falling off of the capacity for sleep as one gets older is also accompanied by a decrease in the rate of growth, until we cease to grow any more at the age of about 22 years. During the first four years of our life our brain volume is actually increasing very rapidly and this may be one of the reasons why we need so much sleep during our infantile stage.

As regards the amount of sleep which we require, this varies with the age, the sex, and also the habits of the individual. Some adults require more sleep than others. Seven or eight hours sleep is considered the average amount of sleep required by an adult. Females require more sleep than males. Sleep is very important to the growing child and it is very important that growing boys and girls shall have plenty of sleep, from 9 to 10 hours a day. The old spartan ideas that it was de-

generate to allow boys to have 9 hours sleep were completely false and generally resulted in starting the boy in life with a tired brain. Too much sleep, however, is also a bad thing, and leads to adiposity, hence the saying "he who sleeps, dines."

In 1863 Kohlschutter, who measured the intensity of sleep as the amount of noise necessary to awaken a sleeper, did some interesting and useful work on determining the various depths that sleep reached and his results are now universally accepted as being correct. Kohlschutter's results show that sleep reaches its greatest depth, a time when the sleeper is least affected by external stimuli, within the first hour, after which it becomes gradually shallower. Kohlschutter also records that after a disturbance during sleep, for example being awoken or being shaken, and immediately the effect of the stimuli had passed away, the intensity of the sleep reached a far greater depth than it had ever done before. He noted that the longer a sleeper slept, and therefore the more fatigued a sleeper was, the greater was the depth reached within the first hour. Kohlschutter also concluded that the will had a decided influence upon sleep, its length and its depth. His methods are open to the criticism, as pointed out by Von Ford, that the sleeper was never really sound asleep as he was always expecting to be awoken. Although he might go to sleep he would know that he was to be experimented on, and this would always be lurking in his mind, and in agreement with Kohlschutter's last suggestion his will would be influencing, even subconsciously, his sleep.

Michelson followed up Kohlschutter's experiments and invented an ingenious method for measuring the Intensity of Sound required to awaken the sleeper. He had a series of brass balls, each ball being a little heavier than the ball preceding it. He had a series of bedrooms in which his subjects slept, but they were never informed when they were going to be experimented on. The walls of the bedrooms were made in the form of wooden partitions. The subject was provided with an electric bell-push which rang a bell some distance away and could not be heard by the subject himself. The subject was told to go to sleep with his hand on the electric bell-press. On falling to sleep he would automatically release the pressure of his fingers on the press and the bell would cease to ring. Although this method does not give the exact moment of falling to sleep it can be taken as being accurate enough for all practical purposes. The subject was also given strict instructions that immediately he awoke he was to ring the bell. Michelson would often wait two or three nights before he finally stood outside the bedroom partition and solemnly dropped the brass balls one by one on to a large wooden plate until the subject rang his bell. By dint of perseverance and hard work he tabulated a series of results which coincided with those of Kohlchutter's with this interesting addition. Michelson declares that a subject who goes to bed early, that is when he is normally tired, obtains his deepest sleep within the first hour and awakes refreshed and fit in the morning; whereas, a subject who works into the early hours of the morning takes a very much longer time to reach his deepest sleep, and even though he may sleep the same number of hours he will feel lazy and tired the next morning. From a series of other experiments which he also made he remarks that stimuli, however small, following regularly one after the other will awaken a sleeper, whereas one loud stimulus often might not disturb him. Such stimuli as the continual beating of a feather on the forehead, or the pricking of a pin, or the running of water from a tap are valuable stimuli which will awaken a sleeper. Michelson also claims that habit plays a great part in normal physiological sleep. Thus, many who go to bed at a fixed hour every evening —and do so whether they are tired or not— fall asleep merely from habit. A person who always lives in London and is accustomed to the noise of trains and buses and the patter of people's feet in the street below finds it almost impossible to sleep in the quiet stillness of the country. This is due to the fact that by means of our subconscious mind we can put into operation a mechanism which can eliminate such habitual stimuli, and it is only when these stimuli are forcibly altered that the sleep becomes restless.

Napoleon is a remarkable example of such a mechanism under complete control of the will. Napoleon actually slept on the field of battle. He rarely took more than three hours sleep a day and could work continuously for many hours and when his work was finished, whether the time was night or day, he would sit down in a chair or some odd corner and sleep for any pre-determined time, and always

awoke punctually and completely refreshed. Thus we can conclude that the stimulus required to awaken a sleeper is only relatively, and not absolutely, dependent on the amount of noise. Michelson also introduced the theory that during life there was always going on a fight between a force which sent one to sleep and a force which awakened one. It is interesting to note that a mother though undisturbed by a thunderstorm or any violent noise or stimulus will immediately awake at her baby's cry, the father, however, being unaffected. This also applies to a nurse who will awaken at the slightest movement on the part of her patient. From the work done by various authors we are able to tabulate the degrees of sleep. These may be divided into three stages.

In the first stage sleep is very light, dreaming may or may not occur and the subject may be partially conscious of external stimuli. This stage lasts for about the first half hour, and is followed by the second stage. The second stage is one of very deep sleep in which everything previous to it is absolutely forgotten. The second stage may be divided into two periods, the first period lasting about 4 or 5 hours is the period when the deepest sleep is reached generally within the first hour; this is indicated by the abolition of all physical phenomena and the absence of dreaming. The second period, after 5 or 6 hours, is indicated by a gradual awakening of the faculties one by one. Dreaming often occurs and there is a partial perception of external impressions. The third stage is one of partial consciousness and may vary for different periods of time depending on external stimuli and whether the subject has a train to catch in the morning or not.

We now come to the most interesting problem of all, which has mystified men of science of all ages. What is the cause of normal physiological sleep? Why is it that every healthy individual lays himself down to sleep for seven or eight hours every twenty-four hours. How terrible is the state of those who cannot do so.

I have attempted to outline for you the various Physiological changes which take place. In considering the cause of sleep it is interesting to note that nearly every scientific investigator into its cause has taken one of these changes and one only, and has tried to prove that it is this change which produces sleep. Thus Durham, Mosso and other authors claim that sleep is caused by the brain becoming anæmic. It is now an admitted fact that during sleep anæmia of the brain is an accompanying factor, but, that it is the dominating cause of sleep is far from proven. Admittedly "sub-consciousness" can be produced by compressing the common carotid artery against the transverse process of the sixth cervical vertebra, but this is not normal physiological sleep. If anæmia of the brain causes sleep, what is the deciding factor which can produce anæmia of the brain? When I lay me down on my bed and close my eyes do I consciously or sub-consciously command less blood to go to my brain and more blood to go to my viscera? But then it would be my own will which was the cause of sleep and not the anæmia of the brain at all. It may be a factor in the final unconsciousness of sleep, but it is not the cause of sleep. Similarly with all the other theories of sleep, the endocrine, the toxin, the hormone or the amœboid action of the dendrites, they all fail in that alone they do not and cannot produce sleep, and I maintain that it is only by all the physiological changes acting in conjunction that sleep can be produced.

(To be continued.)

Publications Received.

The Burma Medical Times, The Gong, The Medical Review, The University College Magazine, The Northerner, The Journal of the Canadian Medical Association, The University of Durham College of Medicine Gazette, The Nursing Times, The British Medical Journal, The Isis, The Journal of the Architectural Association, The Bedford College Union Magazine, The Clare Market Review, The University College Hospital Magazine, The St. George's Hospital Gazette, The Medical Journal of South Africa.

Papers by Guy's Men.

A. H. Douthwaite, M.D., M.R.C.S., A clinical study of Rheumatoid Arthritis.—*Brit. Med. Journ.*, 1925, i., 1170.

Appointment.

C. S. Lane Roberts, M.S., F.R.C.S. Obstetric Surgeon, (with charge of Out-Patients) Royal Northern Hospital, Holloway Road.

A Case of Muscular Dystrophy—Pseudo-Hypertrophic Type.

By J. B. HANCE, O.B.E., M.B., B.Ch.Cantab., F.R.C.S.E., Major, I.M.S.

THIS case is recorded as illustrating the commonest form of that rare group of diseases, the myopathies, or muscular dystrophies.

The common feature of these diseases is the "atrophy of the skeletal muscles from congenital defect and subsequent pathological change, unassociated with any lesion of the nervous system, and characterised by progressive muscular wasting and weakness during infancy and childhood." (1)

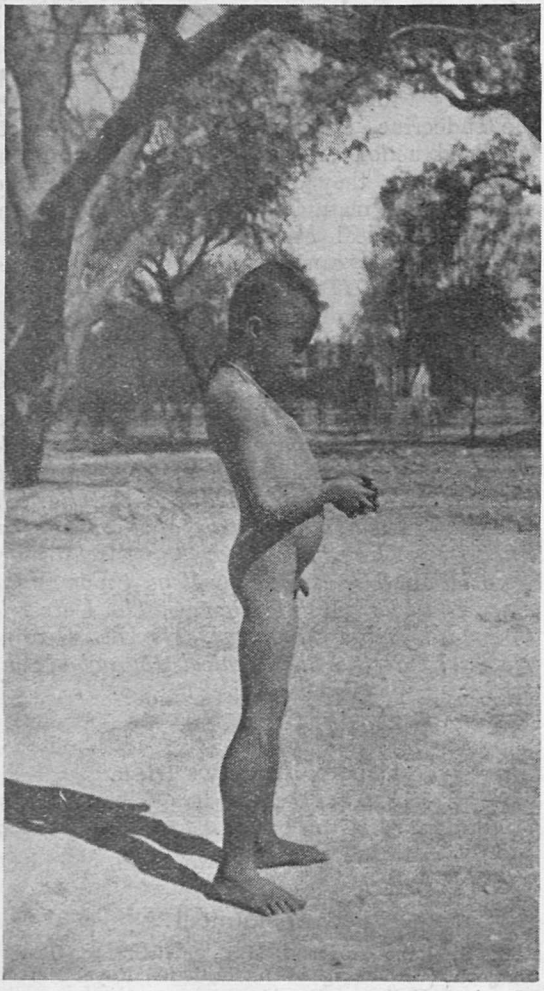


FIG. 1.

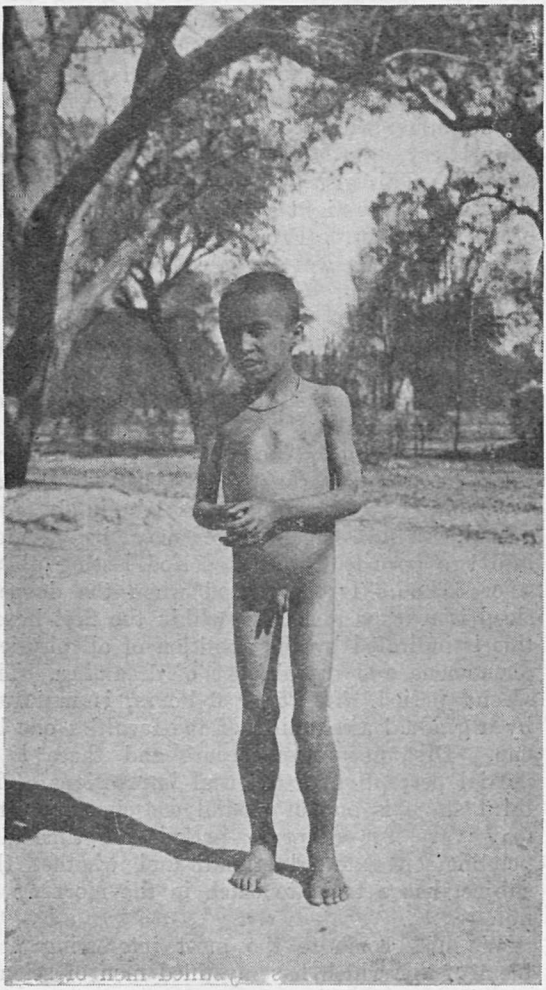


FIG. 2.

The patient, a young Wazir Pathan, aged about 8, was brought to Hospital with the history of 4 years difficulty in walking, with frequent falls when walking or standing. On enquiry, his maternal uncle was said to have died in early life from a disease with similar symptoms. Patient's childhood had been apparently normal, until about the age of 4, when it was noticed that his arms were losing power and his gait becoming peculiar.

Previous history afforded no elucidation, patient having always been healthy.

On examination the most pronounced feature was the disproportionate size of the muscles of the calf, as compared to the wasted, insignificant thighs and upper limbs, well seen in Figs. 1, 2 and 3.

Fig. 1 illustrates well the pseudo-hypertrophy of these muscles and the lordosis characteristic of this group of diseases, as well as the characteristic attitude assumed standing with the feet wide apart.

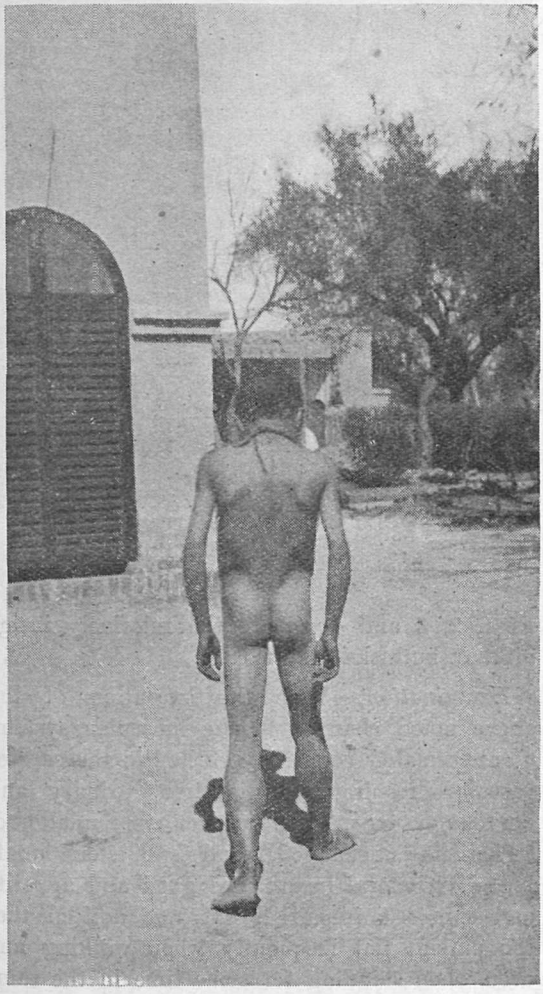


FIG. 3.

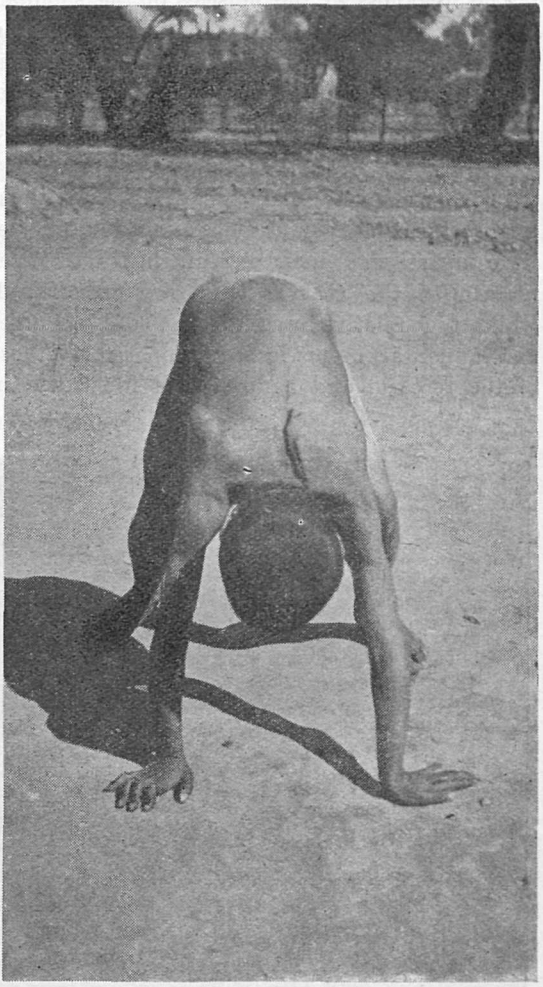


FIG. 4.

Fig. 2 shows the atrophy of the pectoralis major (compare that of the normal child in Fig. 7). The calf hypertrophy is also well seen.

Fig. 3 illustrates the "winging" of the scapulæ consequent on the wasting of the serrati magni and rhomboids and the pseudo-hypertrophy of the infra-spinatus is also well shown.

Figs. 4 and 5 illustrate Gower's pathognomic sign. In rising from the ground patient first rolled into the quadrupedal position (Fig. 4) and then "climbed up himself." (Fig. 5.)

The weakness of the muscles of the shoulder girdle is well seen in Fig. 6, illustrating the "slipping through the hands" when patient is lifted with the hands of the lifter in his axillæ. Compare this with the similar lifting of a normal child of the same age (Fig. 7).

It is unfortunate that the photograph illustrating the clumsy waddling gait with the feet wide apart was unsuccessful, but the latter feature of the gait is well seen in Fig. 3, while the relative weakness of the shoulder and upper arm muscles as compared to those of the forearm and hand is well illustrated in Figs. 2, 3 and 4, as are the relatively insignificant buttocks and thighs.

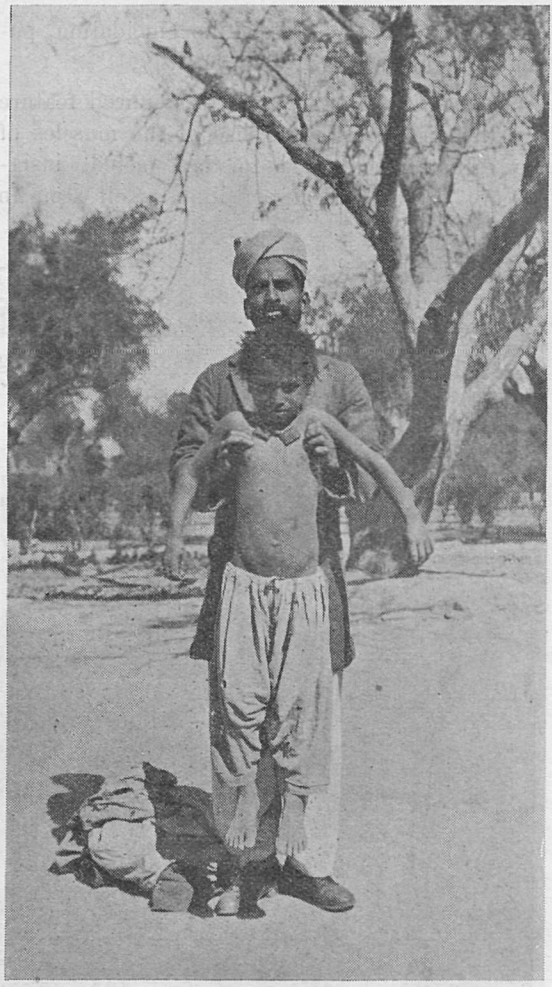


FIG. 6.

FIG. 5.

Examination.—With the exception of the above noted changes in the muscular system, no abnormality could be detected in the cardio-vascular, respiratory, digestive, urinary and nervous systems. The reflexes were unaltered, sensations unchanged, and sphincters unaffected. General health was good and appetite and spirits unimpaired. It was noticed that the patient fell frequently when walking and even when standing for some time in the same position.

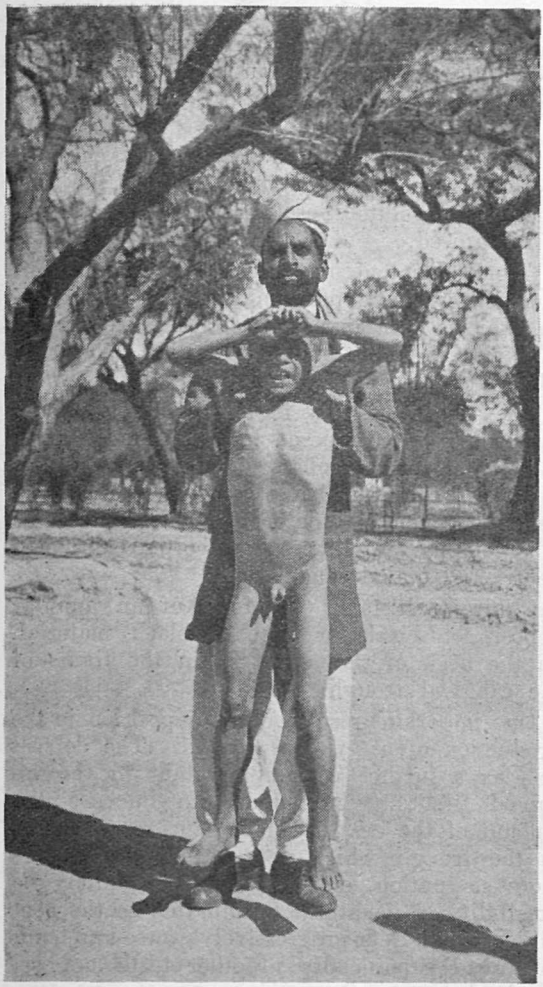


FIG. 7.

The morbid anatomy of this group of diseases, constituting, it will be remembered, an atrophy of the muscle fibres combined with increase of nuclei beneath the sarcolemma and deposit of fat between the muscle fibres, and the unknown ætiology constitute an interesting study.

Whether the recent modification of our previous ideas as to the innervation of the skeletal muscles will afford any clue to the causation and treatment of these diseases is an equally interesting speculation.

REFERENCE.

(1) Langmead: Dictionary of Practical Medicine, 1921.

Notice.

THERE seems to be a misunderstanding with regard to teas served at cricket matches played at Honor Oak Park. I wish to bring to the notice of all playing members of teams, that only teas for the Visitors are paid for by the Club. Would all members who have played this season kindly settle their account with Harris as soon as possible.

It would greatly facilitate the work of the Cricket Committee if members in future would pay for teas on the day of the match.

S. P. MEACOCK,
Hon. Secretary,
Guy's Hospital Clubs' Union.

19th June, 1925.

Dental Notes.

Gingivitis.

Clinical Lecture by G. B. PRITCHARD, M.R.C.S., L.R.C.P., L.D.S., R.C.S.

I HAVE chosen the subject of Gingivitis for this lecture because it is one in which I am particularly interested and because a number of you have been associated with me in its treatment for the past eight months.

It is a very important type of oral sepsis and an extremely common one, but unfortunately its earlier manifestations are often underestimated or ignored, because its appearance in the early stages differs very little from that of the normal mouth, and it often gives rise to no local symptoms at all.

Gingivitis is that form of inflammation of the buccal cavity which is confined to the gum margin. It involves the tissues of the gingival trough and those in any close relationship to it. Like all other inflammatory lesions it is the result of injury which in this case is primarily of traumatic origin, and there is always, sooner or later, a superadded bacterial infection.

How does the gingival margin get its primary injury?

It is an exceedingly delicate structure, but nature has arranged it around the necks of the teeth and the teeth themselves in their respective arches, in such a way as completely to prevent any mechanical injury during the course of mastication. I am speaking, of course, of a mouth in which the occlusion and other functions are normal.

In this type of mouth the contact points are all established and this prevents the impaction of food on the interdental papillæ. Buccally and lingually in the lower and upper jaws the curves on these aspects direct the food expressed from between the teeth free of the gum margin. On the other aspects the food does not tend to impinge on the gum margins. The complete mastication of a suitable diet, and I stress the word suitable, in a normal mouth prevents any food lodgment at all and what is equally important, the deposition of the salivary salts as tartar.

Food lodgment and tartar accumulation are the main exciting causes of gingivitis. There must be then very common predisposing causes of these accumulations round the teeth and they are as follows:—

1. Abnormalities of the dental arches and of the position of the teeth in normal or abnormal arches.
2. Abnormalities of diet and dietetic habits.
3. Abnormalities of respiration.
4. Dental caries and restorations after caries by fillings or artificial teeth.

All these factors promote the stagnation of food and other debris round the teeth and the deposition of tartar.

In the case of food collection, it, in certain cases during the progress of mastication, actually gets forced down into the gingival trough, and sets up inflammatory changes. This trough normally is only a potential space and its delicate lining epithelium is in contact with the enamel

In the case of tartar the gingival margin is pressed down as the material accumulates and even if nothing worse happens there is a gradual denudation of the root.

The next stage is infection. The impacted material or accumulated secretion or debris gets infected and the infection passes to the gum margin which is debilitated and already congested. The epithelium is very thin on the trough and may even be absent in places and so by a process of ulceration the sub-epithelial tissues are opened up. By this time a definite inflammation of a destructive character is set up.

The inflammation is nearly always chronic; the onset is so slow and insidious that the condition is absolutely established well before it is recognised.

One frequent accompaniment of chronic suppuration is the deposition of calcific material, and this is seen in nearly all cases of chronic gingivitis, where there is always a deposit of what is known as seruminal calculus.

The origin of this is not definitely clear; by some it is considered to be a deposit from the exudate of the inflamed gingivæ; by others to be a form of salivary calculus modified by its environment. Whatever its origin may be it is composed of lime salts incorporation, food debris and oral desquamations.

Clinically it takes the form of an annular deposit of black or greenish-black material, on the neck of the tooth within the limits of the gingival trough.

One important result of this deposition is the production of a "vicious circle." The deposit acts as a further constant irritant to the inflamed tissues. This tends to increase the amount of the deposit, more damage gets done to the trough which gets deeper and allows more stagnation, etc. There is absolutely no possibility of a natural termination to the condition, which gets progressively worse and tends to spread superficially to other teeth not yet involved.

Gingivitis can also arise from that type of malocclusion of the teeth; where, without any definite abnormality in position, the teeth are too tightly packed together in their arches. A mechanical congestion of the gingival margin and the whole of the periodontal membrane arises, a deposition of seruminal calculus occurs in the gingival trough, and the condition becomes established.

This occurs constantly during the attempts at eruption from an impacted lower third molar, in which case the congestion of the gum margin can be seen around several teeth anteriorly. When the canine teeth erupt with difficulty into a space too narrow for them, they exercise pressure laterally and the papillæ become congested.

Then there is the connection between traumatic occlusion and gingivitis. It is seen in

cases of close bite when the lower incisors impinge on the angular or gum margin of the uppers. In this case direct mechanical injury is done to the gum margin, or else the upper teeth are forced forward at every closure of the jaws. A chronic gingivitis and periodontitis is set up. In other cases it is seen when with an edge-to-edge bite the whole of the force is taken on one or two incisor teeth only.

Gingivitis also occurs during the progress of certain systemic diseases, notably scurvy and mercurial poisoning. In these cases the tissues are so debilitated by the general intoxication that the slightest amount of tartar deposit, or food stagnation, gives rise to a severe gingivitis which spreads with great rapidity.

Up to this point my description has been that of the causes and onset of a chronic gingivitis. It often shows itself, however, as a condition acute from the onset and is due to some definite infection. It has a short incubation period and an acute course, and under certain conditions it is contagious. If untreated, after a few weeks during which several acute exacerbations occur, it lapses into a chronic condition which flares up periodically. These cases usually arise from a fuso-spirillary or streptococcal infection in comparatively pure culture. One constant result is a certain amount of rapid tissue destruction.

I do not propose to discuss this type further. It is not nearly so common as that which is chronic from the onset.

The first indication is a slight congestion and swelling of the gum margin, especially in the region of the interdental papillæ, and an apparent deepening of the gingival trough. Soon there is a slight exudate of mucus, with which becomes incorporated a certain amount of food and oral debris.

At this stage there may be slight hæmorrhage when the teeth are brushed. Next we find that the deposit of seruminal tartar is commencing and there is an increase in the congestion. These manifestations may occur anywhere along the gum margin, depending on which particular predisposing cause is operating, and where: But, from wherever it starts as a localised lesion it tends to spread to involve the whole gingival area. After a while, the congestion being established for some time, a certain amount of fibrosis occurs and the papillæ remain permanently thickened. After the calcareous deposit has been formed a chronic ulceration of the inside of the gingival trough occurs and pus is found. This tissue destruction is often only visible microscopically, but it increases the liability to hæmorrhage, which occurs on the slightest trauma or even spontaneously. This hæmorrhage may be the only symptom. Another may be an unpleasant taste and dryness due to accumulated secretions.

Treatment lies in the removal of the predisposing causes and is most important, for, with whatever local treatment the gingivæ are improved, the condition will surely relapse on its completion.

Irregularities must be corrected, crowding relieved, normal respiration re-established, and faulty fillings and cavities made good. Proper dietetic habits must be insisted on and a rational method of cleaning the mouth employed.

The next step is the thorough cleaning of the gum margin. Every trace of foreign matter must be removed from the teeth, with special reference to tartar seruminal or otherwise. The gingival trough itself must be irrigated thoroughly

Next the chronic congestion must be dealt with. Massage is very important and something to massage with must be given. It stimulates the patient's interest, and, if it is an astringent a twofold result is obtained. Glycerine acidi tannici, B.P., is useful in this connection.

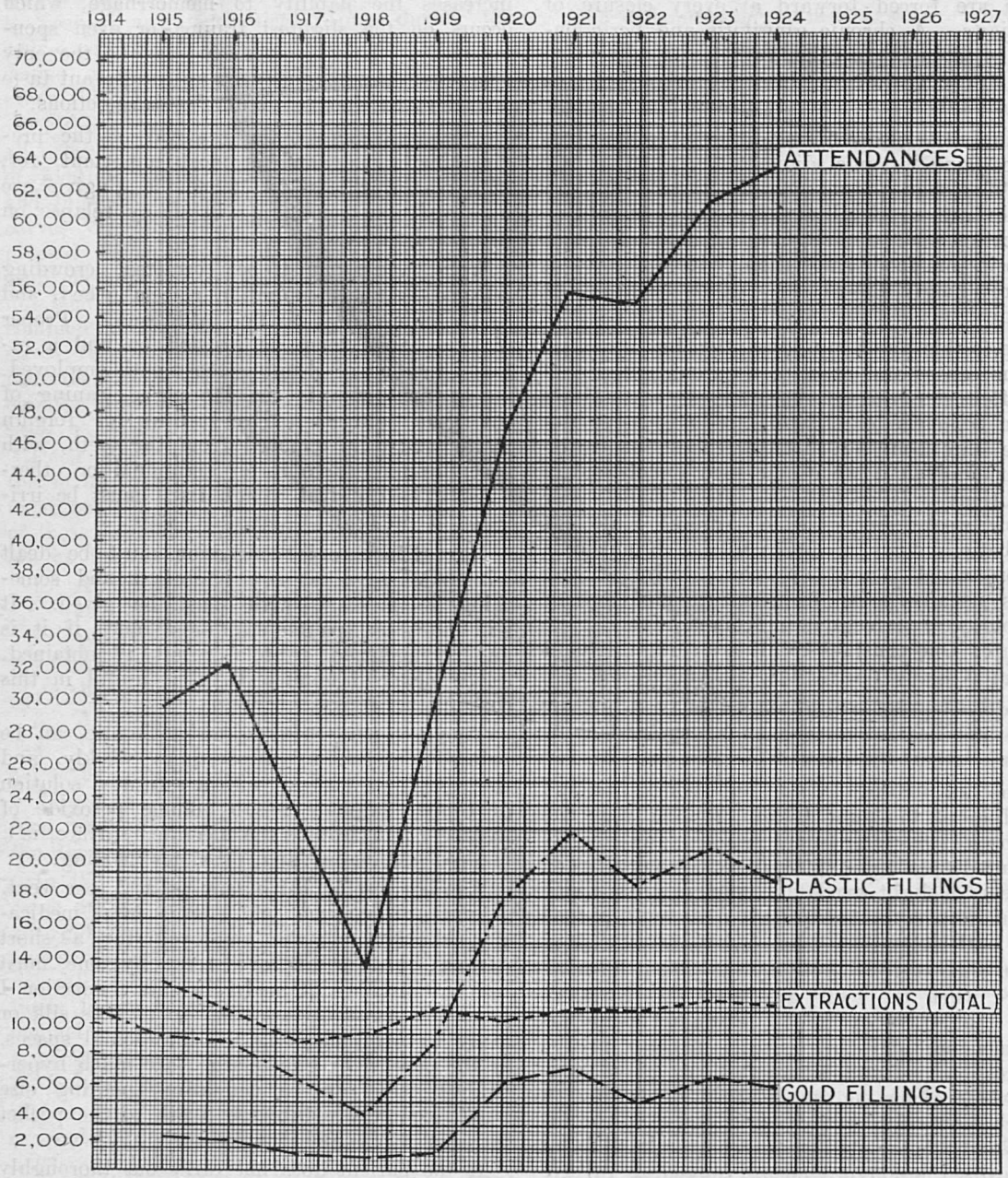
Tincture iodi, B.P., as an antiseptic can be painted on two or three times weekly, and the trough washed out with a saturated solution of copper sulphate in 10 volume peroxide of hydrogen; it cleanses the ulcerated surface, is a marked astringent and promotes healing.

Another useful astringent is a 5 per cent. solution of chromic acid. This local medication should only be employed for a short period, but the improved oral hygiene must be constantly maintained. In this connection I have not yet mentioned the use of floss silk or 3-ply wool for cleaning the interdental spaces. If the papillæ or gum margin are much hypertropied they can be cut away, nothing else will adequately reduce the depth of the pocket between them and the enamel.

If the patient does not carry out thoroughly his part of the treatment the condition will gradually get worse and pass on to a chronic general suppurative periodontitis with its attendant evils.

Dental Activities during the last Ten Years.

THE following is a summary of the work done in the Dental Department during the last ten years, and it is interesting to note that there is a great increase in nearly every section. This increase is modified by a large drop during the war period, followed by a sharp rise directly afterwards.



SUMMARY OF WORK IN DENTAL DEPARTMENT.

	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914
Attendances	62,720	60,950	54,646	55,492	45,355	28,637	12,890	21,915	32,041	29,519	—
New Patients	10,787	11,695	10,466	11,101	9,839	4,958	3,213	4,917	6,761	5,756	—
Gold Fillings	5,211	5,856	4,567	6,390	5,267	1,270	865	1,489	2,177	2,582	2,704
Plaster Fillings	18,116	20,358	17,896	21,249	17,348	8,367	3,837	6,316	8,498	8,905	10,477
Crown	169	178	246	449	370	226	324	238	327	435	504
Denture	1,124	978	1,068	1,072	1,355	234	210	238	322	474	—
Scalings and Gum Treatment	4,412	5,032	5,233	4,086	2,871	718	427	408	769	646	758
Devitalised Teeth ...	1,242	1,561	1,635	2,335	2,072	349	574	794	1,414	1,281	1,803
Extractions in Gas Room	9,006	8,453	8,944	8,651	7,168	5,272	4,788	5,188	6,074	7,129	—
Extractions with Local Anæsthesia	3,356	2,944	1,999	2,317	1,683	3,542	2,121	1,844	1,410	968	—
Extractions without Anæsthesia	—	41	79	182	1,628	2,180	2,041	1,644	3,491	4,178	—

Since 1921, there has been a steady decrease in the number of devitalised teeth and crowns, which is in accordance with the trend of modern practice. The most marked change is in the ordinary extractions without any anæsthetic; in 1914 these outnumbered the extractions under local anæsthetic, they began to equalise in 1917, and to-day, there are none recorded, as all these cases are given a local anæsthetic. It is to be regretted that there are no records available before 1914.

The Guy's Hospital Garden Party.

THIS year saw the revival of yet another pre-war custom, that of holding a Garden Party on the occasion of the Annual Prize Giving.

Those unacquainted with these functions must have doubted the sanity of that most earnest and energetic body, the Hospital Works Department, when they discovered them washing, actually washing with real soap and water, the posts in the Park. Still greater must have been their amazement when they carefully proceeded to paint them *white*, a protest, it was whispered, against the uncleanly window frames. This view seemed to gain in force when all the window panes were cleaned; another view suggested that it was a trap to catch those late for meals, and judging by the paint removed there must have been a number of paint stained aprons. The pessimists swore that it was an attempt to break the drought; the optimists claimed that it was a new scheme to entice the grass to grow by reflected light! Whatever may have been the case, the fact is that it did begin to rain, and continued to do so until the Borough smoke and soot had taken the shine off the posts, when it suddenly stopped, without even making the grass green.

The school cleaners, too, accomplished prodigious feats; after working all day Saturday and most of Sunday, they succeeded in making the whole of the Medical School, the Library, and the Museum, spotlessly clean at one and the same time.

The morning of Monday, June 29th, saw the Hospital at its best, all spick and span, resplendent with flowers, awnings, a bandstand (on the greenest piece of grass!), and last, but by no means least, tea booths and ice-cream stalls.

The visitors began to arrive early, and at half-past two the Park was fairly crowded, for it holds many, everyone chattered, admired the frocks, and asked of their neighbours, "Which way will the Duke come, and will the Duchess be present, too?" "Where shall I see best?" and "Where can I get some tea?" Lastly, and in many cases in vain, "Are there any seats?"

Photo by Topical Press Agency.

H.R.H. THE DUKE OF YORK at the Garden Party, accompanied by the Treasurer, FRANCIS P. WHITBREAD. and the Vice-Chancellor of the University of London.

This continued until three o'clock by which time excitement was rife and anticipation at its height. At three His Royal Highness the Duke of York, K.G., arrived, amid the enthusiastic welcome of Maze Pond, and was received by the Treasurer, Francis P. Whitbread, Esq., and the Vice-Chancellor of the University of London, Professor Ernest A. Gardner, Litt.D.

His Royal Highness proceeded to the Court Room, where the Governors and Staff were assembled; here the Senior Physician, Dr. Fawcett, the Senior Surgeon, Sir A. Fripp, the Senior Dental Surgeon, Mr. Hopson, and the Matron, Miss Margaret Hogg, were presented to his Royal Highness.

The Governors and Staff of the Hospital then proceeded to the Physiological Theatre, where they were followed by His Royal Highness, who was escorted by the Treasurer, the Vice-Chancellor, the Dean, the Equerry, Captain Basil Brooke, the Superintendent, Dr. Fawcett, Sir A. Fripp, Mr. Hopson, and the Matron.

In the Colonnade His Royal Highness stopped to speak to little Dicky Scroby, a four year old patient in "Cornelius," who was admitted to the Hospital in a very poor way after being run over by a motor lorry. Dicky had long anticipated the visit of "Mr. Prince Duke," and was duly wonder struck when His Royal Highness stopped to speak with him.

Passing through the Park, His Royal Highness received an ovation such as can only come of an immense popularity.

In the Physiological Theatre the Treasurer said that it was his pleasant duty on behalf of all connected with the Hospital to give a most cordial welcome to His Royal Highness who had so graciously found time amidst a multiplicity of engagements to be present on this occasion. They were grateful for the patronage accorded them in the past by the Duke, and also by the President, the Prince of Wales. It was a great encouragement to those who were associated with the name of Thomas Guy and who were carrying on a work for the sick and suffering poor. Such work became more necessary and more onerous every year, but they would always be grateful for the support the Hospital always received from the Royal House.

The Treasurer congratulated the successful candidates for the School Prizes which he was about to ask His Royal Highness to present, and commiserated with those best described in the scientific terminology of the day as "also rans." For these he felt a most sincere sympathy, the result of many bitter personal experiences.

His Royal Highness graciously consented to distribute the Prizes, as follows :—

MEDICAL.

Open Scholarship in Arts (£100)—
John Widdicombe Oliver.

War Memorial Scholarship (£200)—
John William Crow.

Open Junior Science Scholarship (£100)—
William David Glynn Jones.

Confined Junior Science Scholarship (£100)—
William Louis Murray Bigby and Walter Patrick Roe, Equal.

Open Senior Science Scholarships (£80 each)—
John Satchell Rake, War Memorial Scholarship.
Frederick Joseph Sale.

Junior Proficiency Prizes—
Sidney Isaac Abrahams, and Eric Charles Till, Equal First.
Norman Ernest Pitt, Third.

The Hilton Prize for Dissections—
John Barnard Blaikley, William Hugh Miller, Temple Theodore Stamm, Equal.

The Michael Harris Prize for Anatomy—
Ernest Thomas Conybeare.

The Wooldridge Memorial Prize for Physiology—
Ernest Thomas Conybeare, Prize.
Norman Ernest Pitt, Certificate.
Eric Charles Till, Certificate.

The Golding-Bird Gold Medal and Scholarship in Bacteriology (£30)—
John Gray, Medal and Scholarship.

The Beaney Prize for Pathology (£34)—
Douglas William Claridge Northfield.

Charles Oldham Prize in Ophthalmology (£30)
James Rudd Ratcliffe.

The Treasurer's Gold Medal for Clinical Medicine—
Douglas William Claridge Northfield, Medal.
Stephen Victor Strong, Certificate.

The Treasurer's Gold Medal for Clinical Surgery—
Douglas William Claridge Northfield, Medal.

DENTAL.

Open War Memorial Scholarship in Arts, (Approx. £160)—
Charles Gaffney Baker and John Clifton Read, Equal.

Open Junior Science Scholarship (Approx. £160)—
David Joshua Bull.

Third Year's Prize in Dental Subjects—
Robert Cutler.

Prize for Operative Dental Surgery—
Eric Noel Screech, Prize.
Charles Betchley Boyd, Certificate.
William Charles George Ford, Certificate.
Trevor Thomas Oliver, Certificate.

Senior Prize in General Subjects—
Robert Vivian Bradlaw.

Fourth Year's Prize in Dental Subjects—
Geoffrey William Dibble.

The Newland-Pedley Gold Medal for Operative Dentistry—
Gerald William Gathergood, Medal.
Henry Mathew Pimm, Certificate.

Dr. Fawcett, in the absence of Sir Cosmo Bonsor, who managed to be present later in the afternoon, proposed a vote of thanks to His Royal Highness, and spoke of the work done by the Royal Family for all that concerned the lives and welfare of the people and the scientific progress of art and medicine.

Three cheers were called for and raised a rousing response.

His Royal Highness then visited the Nurses' Home, where he inspected the splendid work of the Ladies' Association, of which the Duchess of York is the President. Here Lady Cosmo Bonsor, Lady Hale-White, and Mrs. Trevellian Martin, whose people gave to the Nurses their much used Swimming Bath, were presented to His Royal Highness.

On the return through the Colonnade, His Royal Highness visited the Astley Cooper Ward and there spoke to several of the patients. His Royal Highness then departed amid renewed cheers.

After the departure of the Duke of York, visitors toured round the Wards, the Laboratories, the Library, and the Museum, and the Nurses conducted a regular field day raid on the Medical School.

Social occasions are rare at the Hospital, and everyone is justified in taking full advantage of them; accordingly we were not surprised to find Senior Sisters being escorted round the Nurses' Home by senior men, but we were surprised at the complete departure from convention displayed by the unofficial steward who conducted at least half a dozen nurses round the School Buildings, and what is more he seemed quite at ease; still more were we surprised to catch an official steward smoking in the Museum!

Amongst the distinguished guests present were the following :—

The Treasurer, Francis Pelham Whitbread, Esq., Sir Cosmo and Lady Bonsor, Lord Revelstoke, Lord Queenborough, H. A. Trotter, Esq. Vice-Chairman of the House-Committee, The Vice-Chancellor of the University of London, Professor Ernest Gardner, the Principal of the University of London, Sir E. Cooper Perry, M.D., the Chairman of Convocation of the University of London, Professor S. L. Loney, the President of the Royal College of Physicians, Sir Humphry Rolleston, Bart., the President of the Royal College of Surgeons, Sir John Bland Sutton, Sir William and Lady Hale-White, Dr. Fawcett, Senior Physician to Guy's Hospital, Sir Alfred Fripp, Senior Surgeon to Guy's Hospital, the Matron, Miss Margaret Hogg, C.B.E., the Superintendent, Mr. H. L. Eason, C.B., C.M.G., the Dean, Professor T. B. Johnston, the Matron in Chief of the War Office, Miss Hodges, the Matron in Chief of the Territorial Nursing Service, Dame Maud McCarthy, the Matron of St. Bartholomew's Hospital, Miss McIntosh, the Matron of the London Hospital, Miss Monk, the Matron of St. Thomas's Hospital, Miss Lloyd-Still, Mr. Thomas Hayes, Clerk to St. Bartholomew's Hospital, Sir James Michelli, Secretary of the Dreadnought Hospital, the Hon. Mrs. Ronald Greville, Sir Herbert and Lady Parsons, Surgeon Rear-Admiral Beadnell,R.N. Colonel Lushington, Sir William and Lady Bragg, The Hon. Mrs. Molyneux, the Rector of the Imperial College of Science and Technology, Sir Thomas Holland, the Principal of Bedford College, Miss Tuke, Members of the Medical and Surgical Staff, Guy's Hospital, Secretaries and Matrons of the various Hospitals.

Those, who secured seats, listened to the band of the Royal Air Force, which played an excellent selection of music throughout the afternoon.

Finally, our thanks are due to the Governors and Staff of the Hospital for the really splendid afternoon which they gave us; not forgetting the Kitchen and Works Department upon whose efforts the successes of the afternoon very largely depended.

Correspondence.

DEAR SIR,—Noticing, in a second hand book catalogue, some of the works of Sir Richard Blackmore, it seemed worth while to add him to the list of literary members of our profession given in the admirable article by R. C. Brock in the GAZETTE for May 9th, last.

Sir Richard was a most voluminous writer; verse ran from his pen like a river, and he wrote many essay and numerous medical articles. After he obtained his M.A. at Oxford in 1676, he became a schoolmaster, then he travelled, took his M.D. at Padua and, returning to England, was elected a Fellow of the Royal College of Physicians, being Censor in 1716. In 1697 he was appointed Physician to William 3rd and later to Queen Anne.

He is remembered for two reasons. Firstly

for the quantity of his writin; he was indefatigable, his mania for writing was incurable. It would fill too much of your space to give a list of his works which may be seen in the article on him in the "Dictionary of National Biography." His writing was done in such scant leisure as his professional duties allowed "and for the greater part in coffee houses or in passing up and down the streets."

Secondly, he was completely impervious both to neglect and to satire. It is true that Locke helped a fellow doctor by praising him, that Addison read some of Blackmore's writing with pleasure, but Swift said of this "I admire to see such praises from this author to so insipid a scoundrel whom I know he despised." Johnson gives him many pages in his "Lives of the Poets" and, in his kindness, said the most he could for him, but he remarks that "I do not remember that by any author, serious or comical, I have found 'Eliza' either praised or blamed. She dropped, as it seems dead born from the press." Dryden, Pope, Swift, Steele, Gay and others all had a fling at Blackmore, Garth bid him "learn to rise in sense and sink in sound." But Blackmore was quite unperturbed; he went on writing, paying no regard to neglect or satire, although it was written of him,

"By nature form'd, by want a pedant made,
Blackmore at first set up the whipping trade.
Next quack commenced; then fierce with pride he swore
That toothache, gripes and corns should be no more;
In vain his drugs as well as birch he tried,
His boys grew blockheads and his patients died."

Yours sincerely,
W. HALE-WHITE.

19th June, 1925.

Death Certificates.

DEAR SIR,—In the notes on Death Certificates which you were good enough to insert in the GAZETTE, I notice one death due to cramp. I am afraid this may puzzle people. *It should have been Croup.*

Apologising for my bad writing,—I am, Yours sincerely,

S. G. FLOYD.

Milton House,
Orsett Road, Grays.
23rd June, 1925.

[We regret this error, also that the deaths, due to Myxœdema, were reported as 6. This should have been 1.—ED.]

Reviews.

General.

Guy's Hospital Reports. Volume 75, No. 2. Published by Messrs. Wakley & Son (1912), Ltd., London. *Price* 12*s.* 6*d. net.*

THE April Number of the "Reports," which we received in June, opens with a short life of W. H. A. Jacobson, late Consulting Surgeon to the Hospital, illustrated by two photographs, one of which has already appeared in the Guy's Hospital GAZETTE. After a short, illustrated account of the short tube for the treatment of stricture of the œsophagus, by Sir Charters Symonds, there follows a series of short articles by various writers on the nervous symptoms due to alkalæmia and renal insufficiency, following obstruction in the region of the pylorus and the alkaline treatment of duodenal ulcer.

Dr. C. P. Symonds contributes a clear and simple classification of the common neuroses with their ætiology, and Mr. W. E. Tanner has tabulated, in twenty-two tables, the cases of gall-stones in Guy's Hospital for the twenty years preceeding 1916. From these he has drawn comparisons between the respective merits of cholecystostomy and cholecystectomy.

Mr. Rowlands has written on three cases of sarcoma of bone; Mr. Philip Turner has analysed the results of fifty cases of trans-septal orchidopexy for imperfectly descended testicle.

Mr. Gaymer-Jones has described a method of treating severe grades of peritonitis, and meningitis of nasal origin is discussed by Mr. Mollison, and the number is concluded by a clinical study of polypi of the prostatic urethra and their relation to chronic prostatitis by Mr. V. E. Lloyd.

As usual the articles include a wide variety of subjects, and are largely the result of investigations of cases, admitted to Guy's.

Medicine.

Acute Infectious Diseases. By J. D. Rolleston, M.A., M.D.Oxon. pp. vii+376. Published by Messrs. Wm. Heinemann (Medical Books) Ltd., London. *Price* 12*s*. 6*d*. *net*.

THIS book, written for practitioners and students, deals with those infectious diseases, that are treated chiefly in isolation hospitals. It is the outcome of twenty-five years' experience in the treatment of these conditions, which experience makes the sections on symptomatology and diagnosis of especial value. The diseases are treated in a plain, straight-forward manner, and most of the more controversial aspects of them are omitted.

For instance, the treatment of pertussis by rectal injections of olive oil and ether is not mentioned, though perhaps this method deserved at least a passing word. Methods of treatment that have shown definite good results, on the other hand, are fully explained, as in the case of the serum treatment of cerebro-spinal meningitis. Here the technique is adequately described, though mention might have been made of some of the more practical nursing difficulties of these cases. If a general anæsthetic is to be given for a daily or sometimes twice daily lumbar puncture, the feeding of the patient becomes a matter of great difficulty. This is not always considered, and readers of this book might have been reminded of the benefit, derived by all concerned, when the anæsthetics are given at a time that interferes as little as possible with the patient's meals.

The lists of complications are ominously long, but fortunately a large number of them are very uncommon. There are no illustrations, as the author considers that the best place to study a rash is at the bedside, and for a student, about to embark on a course of fevers at one of the fever hospitals, the book is excellent.

Treatment of Gonococcal Infections by Diathermy. By E. P. Cumberbatch, M.A.,B.M., B.Ch. Oxon., M.R.C.P., and C. A. Robinson, M.B., B.Ch., Cantab. D.M.R.E., Cantab., Demy 8vo., pp. vii+150. Published by Messrs. Heinemann (Medical Books, Ltd.) *Price* 7*s*. 6*d*. net.

TO most of us diathermy is a closed book, except in so far as we know it to be an extremely useful form of treatment. One says, "Diathermy you know," realising that it will do an immense amount of good, but having no idea just how it is all done. This little book makes extraordinarily interesting reading and should do much to lift the veil which for many of us surrounds the subject.

Perhaps the happiest end-results of diathermy have been in gonococcal infections, so difficult of approach by the other means at our disposal, and here we have set out in interesting form the ways and means by which this comparatively new form of treatment does its good.

The authors do not confine themselves to theory and mode of action, but give the most practical details, and the volume should put diathermy as a form of treatment within the ken of all of us. Altogether an excellent little book and well worth reading.

Sport.

Guy's Hospital Boat Club.

Race with St. Paul's School.

ON Saturday, June 13th, a friendly race was rowed against St. Paul's School 1st VIII., over a course from Hammersmith Bridge to the Putney Boat Houses, a little over $1\frac{1}{4}$ miles. Guy's were slow off the mark, while St. Paul's went off at a lively 38 and were almost a length up at the end of the first minute. With this disadvantage, Guy's, far from being rattled, continued to maintain their steadiness and length and the School were unable to increase their lead. Several spurts by Guy's were answered pluckily, but at the mile the Hospital were beginning to go up; at Beverley Brook the St. Paul's stroke showed signs of distress; Guy's were now going up rapidly, but the School, by a great effort, managed to get home winners by the narrow margin of four feet. This result was quite satisfactory. St. Paul's are entered for the Ladies' Plate at Henley and are regarded as one of the fastest crews on the tideway.

Marlow Regatta.

THE following account of the race at Marlow has been contributed by our coach, Mr. *Hylton Cleaver*:—

"Following their success in the Inter-Hospital Races, the Guy's Hospital Eight entered for Marlow Regatta on June 20th. Normally a crew of this calibre would have been justified

in going for the junior event which in these days takes a lot of winning. Owing to the fact that Miller was ineligible, and no junior-senior event was included, Guy's, in order to get a row, had to take their life in their hands and go for the Marlow Eights in which they would come up against the first eights of Quintin, Twickenham, Kingston, Marlow, and Vesta, besides good crews from other clubs, such as the second eights of London, Thames, and Jesus, Cambridge. Had Guy's won this event at their first attempt their rowing would have been hailed as sensational, but they were not a sensational crew. They were, instead, a thoroughly good one, and what was expected was not that they would win, but that they would be able to justify their entry and create a happy precedent. This they undoubtedly did.

After three weeks at Putney the crew went to Marlow for practice as from Thursday evening, and took considerable pains to give themselves the best chance possible, undismayed by the fact that they were using a boat twelve years old which had been repeatedly damaged and which leaked. The draw was unlucky, for they had to face the Twickenham crew which (with two changes) got into the final of the Thames Cup at Henley last year, besides Jesus II. In the result these two crews fought out a finish in which each was pushed to the uttermost limit, ending in a four-foot win for Twickenham, and the most they could get from Guy's between them was just over a length.

In the race against St. Paul's School, Guy's had shown themselves too casual off the mark, but they had demonstrated the ability to maintain length and steadiness forward and sufficient shove to row a crew down without getting flustered. With this information to guide him, their coach set about speeding them up over the first part of the course, without creating a bucket in the middle of the boat. This was not so delicate an operation as it might have been, for Huddy developed on exactly the right lines and the experience of the stern four in particular guarded against the crew being rushed. By the eve of the regatta, Huddy had shown the ability to go off at thirty-eight and he repeated this performance in the race; indeed, the first minute was as good a bit of rowing as Guy's have ever done. Whereas St. Paul's had left them a length, Guy's now held Jesus II. for a minute and only when the second minute was well on its way did they begin to drop astern. By this time Twickenham, on the Bucks side had begun to draw ahead with Jesus II. on their tails, and the third minute proved Guy's undoing. The crew had always been at their best over the last part of the course and concentration on the first two minutes had left a short spell in the middle of the race where they required a breather, and one more week's practice would have overcome this weakness. By the start of the fourth minute Grove brought his crew out of the slack water in which he found himself through being a shade too far over, and the rowing from this time proved Huddy's pluck, and the steadiness of the crew when rowing at a high rate. Guy's were just over a length behind Jesus II. and, well together, they began to spurt. Jesus II. at the same time started after Twickenham who had steered badly and were having difficulty in clinging to their lead. Along the enclosure Jesus went all out for it, but Guy's hung on to them and both went up on Twickenham. At the finish Jesus II. went right up and only lost by four feet, whilst Guy's were closer to them, in spite of it, than they had been half way down the course, and finished at a fine thirty-eight.

Huddy's stroking was a great asset and his enthusiasm never cost him his rhythm, whilst the good blade work and length in the water of Clayton-Jones made him an admirable seven. Miller's was the most powerful blade in the boat which helped Huddy considerably, and Keele, at five, showed all his old good style and steadiness. Richmond maintained his shove and swing to the bitter end, for all his rather clumsy hands, and Pritchard, who had only been in the boat ten days, showed no signs of being unfit. Townsend improved considerably in the last few days and rowed his best race whilst Clifton discovered more length. Grove's coxing was invaluable, and the fact that he was at one time a shade too close to the Berks shore is discountenanced by the fact that he realised it in time, and steered a much better course than the Twickenham cox."

The crew :—

Bow. E. T. Clifton, 10st. 10lb.
2. C. G. Townsend, 10st. 13lb.
3. R. F. Prichard, 10st. 10lb.
4. J. H. Richmond, 13st. 11lb.
5. K. S. Keele, 12st. 4lb.

6. W. H. Miller, 12st. 2lb.
7. E. Clayton-Jones, 11st. 12lb.
Stroke. E. C. Huddy, 11st. 3lb.
Cox. W. S. Grove, 9st. 3lb.
Sub., J. R. F. Popplewell, 11st. 10lb.

It is perhaps worthy of note that this is the first time that a Hospital Eight has appeared at an up-river regatta. The difficulty of obtaining sufficient time for the necessary training has in past years prevented anything of this sort being accomplished. The keenness of the crew this year, however, enabled us to turn out every evening for the four weeks following the Inter-Hospital Race, and it is to be hoped that in future the Marlow entry will become a regular part of the Boat Club's activities. Several other difficulties had to be overcome, the chief of these being the expense of a new set of oars. This was surmounted by the very generous manner in which several members of the Staff came forward with subscriptions and by the GAZETTE Committee who opened a fund to cover the purchase of the new oars and to form the nucleus of a Boat Fund. Our greatest thanks are due to these for their support.

It was gratifying to find several supporters at Marlow, among them being Dr. Ryffel and Mr. Gaymer-Jones, and their presence did much to spur on the crew.

Mr. Hylton Cleaver again coached the Eight throughout their training on the Tideway and at Marlow and we must take this opportunity of expressing our sincerest thanks for all the trouble he has taken. Our thanks are also due to the London Rowing Club for the loan of a boat.

United Hospitals Swimming.

Championships Won by Guy's.

THERE was a large attendance on Monday, June 29th, at the Bath Club, Dover Street, W., on the occasion of the annual gala of the United Hospitals, which included the championship finals.

The Inter-Hospital Diving Championship was won by London, whose first string, A. E. Kendall, showed consistent form. The 50 yds. went to the ex-Cambridge Blue, T. R. Stevens, of St. Thomas's, (C. de Gruchy, of Guy's, was ill and unable to compete), but Guys' secured the first two places in the 100 yds. with J. W. Jones the winner.

S. E. Theis, also of Guy's, beat Kendall in the 200 yds., and though they suffered defeat in the Team, which was secured by London, Guy's won the trophy with 21 points, London 15, and King's 9.

The Water Polo Competition Trophy was again won by Guy's, who defeated the University by five goals to one.

50 YARDS.—T. R. Stevens, St. Thomas', 1; W. N. Wakely, King's, 2; A. Binx, King's, 3; 2½ yds., 2 yds.; 27 3-5 secs.

200 YARDS.—S. E. Theis, Guy's, 1; A. E. Kendall, London, 2; R. Daplyn, Guy's, 3; R. T. Hale, London, 4; 12 yds., 6 yds.; 2 mins. 32 3-5 secs.

DIVING.—A. E. Kendall, London, 54 pts. 1; A. J. King, London, 50½ pts.,2; A. R. Marsh, Guy's, 43 pts., 3; J. D. S. Thomas, Guy's, 41½ pts., 4.

100 YARDS.—J. W. Jones, Guy's, 1; C. A. Malone, Guy's, 2; J. L. Boyd, University College, 3; A. E. Kendall, London, 4; 1½ yds., ft.; 65 secs.

50 YARDS (Nurses).—Miss Barnes, Guy's, 1; Miss Bates, University College, 2; Miss Waring, Guy's, 3; Miss Kames, University College, 4; 2 yds., same; 40 secs.

150 YARDS TEAM.—London (A. E. Kendall, B. Shaffner, C. Gordon-Wilson, W. J. Fenton, J. Foote, J. L. Rae), 1; Guy's (R. Stevenson, O. R. Marsh, J. W. Jones, C. A. Malone, R. Jarman, S. E. Theis), 2; King's (M. L. Byrne, T. E. Cawthorne, E. M. Butler, R. Cove-Smith, P. W. Stuart, W. N. P. Wakely), 3; 1½ yds., 6 yds.; 1 min. 18 secs.

WATER POLO.—Guy's beat University College by 5 goals to 1. The University defended the deep end in the first half, and Boyd scored the first goal, but on resuming Brown equalised, and Simons gave Guy's the half-time lead. In the second half Guy's had all the best of the game, with Jones scoring two further goals, and Brown, nearing the finish, a fifth.

Guy's.—R. Stevenson; J. Simons, C. A. Malone; L. Brown; R. Daplyn, S. E. Theis, J. W. Jones.

University.—C. Ogburne; L. Fatti, B. Stanley; W. R. Bion; J. L. Boyd; R. S. Smith, F. Robinson.

Fresh Water Animals at the Bath Club.

THE power of the Press is very great; it leads its agents into strange places. A press-agent may take photographs in a church from behind the pulpit during divine

service, provided Royalty is there to be photographed, he may also penetrate the most exclusive circles. It was this strange omnipotence that enabled me to enter the awful portals of the Bath Club, on the occasion of the United Hospitals' Swimming Gala. I had often wondered what this Club could be like, and, ignorantly, had pictured it as one long Saturday night. I had imagined each "h. & c." surmounted by a coronet and that the "palm-olive" was carried on silver salvers. In reality it is very different. The part, to which I was admitted, is just a large swimming-bath with all the modern improvements. One of these, I noticed with pleasure, was not unknown in my own Club. Reading in the bath has long been one of my more athletic pursuits and here was a well-stocked library at the disposal of the members. The walls were decorated, as in many another library, with heads and horns, whose original owners had doubtless become the butts of light-hearted sportsmen, made temporary members of their own particular water-holes. Wild animals seem to have a particular fascination for swimmers, who not only hang their heads around their bath, but imitate their antics in the water as well. Turtles, sunning themselves, porpoises at work and play, ducks and torpedos are but a few of the imitations that I saw at the Gala. It was almost equal to the South Kensington Museum in educational value and far more comfortable. I am no swimmer, though I did a good deal of floating in my younger days, but some of the performances were very arresting. Perhaps the most striking was the competition in imagination between Mr. Griffiths and Mr. Wilkinson. Each alternately out-did the other in the fantastic nature of his imitations. In only one thing did their performances resemble each other. This was in their determination at all hazards to keep their faces well under the water. Whatever they were at the moment, water-wheels, shadows, propellors, turtles or ornithorinchi, they held their heads well below the water and seemed to get along better that way. Only once did Mr. Griffiths break away from this position, when demonstrating the buoyancy of the human body, and this so infuriated Mr. Wilkinson that he repeatedly pushed him under. This exhibition threw some light on one of my childhood's abominations, the fact that I was always forced to wet my head on entering a swimming bath. My companion, a very fine bather and one, who has watched many Galas, unkindly suggested that there were only a limited number of imitations, common to all protean artistes of the water and suggested that a few new ones, such as a cuckoo, refusing to feed its young, an American shark looking for a sucker, or even an imitation of Mr. Wilkinson by Mr. Griffiths would have added novelty.

Of the races, it is not for me to speak, the Special Swimming Correspondent of the GAZETTE having been present to describe these, but special mention must be made of the polo. Here was given one of the finest vocal effects of the evening. The Guy's right back for twenty minutes carried on one of the most sustained choruses, of the Grecian tragedy variety, that has ever been given in seven feet of water. No words were used, but the depth of feeling, that he instilled into his song more than justified their absence. It was a very ecstacy of battle, the fierce joy of which stirred on the side to a four goal victory. If only he had been engaged during the diving it is very improbable that London would have won the Diving Cup.

Cricket.

2nd XI. Results.

v. Shirley, at Honor Oak Park, Saturday, June 6th.

Guy's, 167 (W. H. Dowell, 52; W. Ruzzak, 36; S. D. McClean, 27).

Shirley, 38 (W. H. Dowell, 6 for 12; D. M. Calder, 4 for 23).

Match won by 129 runs.

v. King's School, Peterborough, at Peterborough, Wednesday, June 10th.

King's School, 128 (D. M. Calder, 5 for 37; W. H. Dowell, 5 for 48).

Guy's, 246 (W. H. Dowell, 104; E. Britstone 42; W. A. Corry, 29; W. Ruzzak, 20).

Match won by 118 runs.

v. Old Charlton, 2nd XI. at Honor Oak Park, Saturday, June 13th.

Old Charlton, 193 (D. M. Calder, 3 for 53; W. D. G. Jones, 3 for 48).

Guy's 160 for 8 wickets (W. A. Corry, 67; C. E. P. Davies, 27 not out; W. H. Myburg, 23).

Match drawn.

v. Bromley 2nd XI., at Honor Oak Park, on Saturday, June 20th.

Guy's, 156 (E. Britstone, 31).

Bromley, 111 for 8 wickets (E. Britstone, 3 for 13; W. H. Dowell, 3 for 33).

Match drawn.

v. St. Dunstan's Masters, at Catford, Wednesday, June 24th.

Guy's, 136 (W. H. Dowell, 41; W. A. Corry, 31).

St. Dunstan's Masters, 182 for 5 wickets.

Match lost.

v. Cuaco, at Honor Oak Park, on Saturday, June 27th.

Cuaco, 118 (D .M. Calder, 4 for 33).

Guy's, 208 for 9 wickets (W. A. Corry, 71; C. E. P. Davies, 29; I. S. Rutter, 28, not out).

Match won.

Second XI. v. Third XI., played at Honor Oak Park, Thursday, June 25th, resulting in an easy victory for the 2nd XI.

3rd XI.

1st Innings.

N. S. Plummer, b Calder	4
E. C. Till, b Britstone	1
E. Fulford, b Lewis	24
H. Isaacs b Lewis	11
E. W. Hutchinson, c Calder b Lewis	20
E. E. Evans, c Calder b Britstone	28
J. B. Blaikley, c and b Lewis	2
D. N. Couch, c Jones b Calder	0
C. H. Edney, b Calder	0
C. L. Steyn, b Britstone	17
J. Morton, not out	2
Extras	26
Total	135

2nd Innings.

N. S. Plummer, b Calder	10
E. C. Till, b Jones	29
E. Fulford, not out	32
H. Isaacs b Calder	0
E. W. Hutchinson, c Britstone b Calder	4
E. E. Evans, b Calder	8
J. B. Blaikley, b Britstone	7
D. N. Couch, run out	3
C. H. Edney, b Casper	0
C. L. Steyn, b Casper	6
J. Morton, b Jones	0
Extras	19
Total	118

2nd XI.

D. M. Calder, b Steyn	99
W. A. Corry, c Evans b Hutchinson	12
W. Ruzzak, l.b.w. b Hutchinson	22
H. S. Gare, c Steyn b Till	24
E. Britstone, b Steyn	29
B. Cohen, b Steyn	1
C. E. P. Davies, b Steyn	13
W. D. G. Jones, b Hutchinson	1
H. Richards, c and b Steyn	10
Extras	24
Total (for 9 wickets)	235

A. D. T. Lewis and —. Casper did not bat.

3rd XI. Bowling Analysis.

	W.	R.
C. L. Steyn	5	64
E. W. Hutchinson	3	52

2nd XI. Bowling Analysis.

	W.	R.
D. M. Calder	7	85
E. Britstone	4	52
A. D. J. Lewis	4	32
W. D. G. Jones	2	4
—. Casper	2	4

Hospital Information, etc.

Specialities.

MESSRS. JOHN KNIGHT, LTD., SILVERTOWN, E.16.

WE have pleasure in drawing our readers' attention to "Shavallo," a shaving soap manufactured by Messrs. John Knight, Ltd. It is prepared with glycerine, so does not dry on the face, but acts as a tonic to the skin and gives a pleasant and easy shave. A miniature sample in an ivorine tube will be sent post free on receipt of a post card to the above address.

As specialists in toilet soaps this Firm is well known, and their "Castile" Soap is delightful to use.

For 4½d. Messrs. John Knight, Ltd., will send a sample box containing three tablets, visitors' size perfumed with lavender, violet and sandalwood.

Change of Address.

Dr. J. Linklater, Shanklin House, Aston Lane, Handsworth.

Birth.

LINKLATER.—On May 26th, at 14 Louisville Avenue, Aberdeen, to Hilda (née Maro), the wife of Dr. J. Linklater, a son.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

THIS is almost a "special number" of the GAZETTE—a special *Memory* number. It contains an article on happy memories of the distant past and one on the less cheerful memories of the recent past. The graduate cannot forget the happy conversations of long ago, the undergraduate remembers, even more feelingly, the unfortunate conversations of the other day. That is one of the benefits of growing old, that one may remember only the bright side of the days that are passed and forget the gloom of those days, on which one failed to pass. In fifty years time we shall expect to receive an article from the author of "Judgment," on the joys of examinations in the early twenties and we shall look down—or up, as the case may be—and smile. Grandchildren will crowd around the venerable Candidate, urging, "Tell us about the gumma that wasn't," and he will smile to think that such a chronic piece of misery had made him gloomy even for a moment.

A good memory, or rather a memory for the good things of life, is an invaluable possession —at times, an indispensable one. The sentry, guarding St. James' Palace, would find his tour of duty intolerable without it. Yet sometimes it plays the strangest tricks. A few days ago, on the occasion of the opening of the new headquarters of the British Medical Association by His Majesty the King, we found ourselves in the courtyard at Tavistock Square, listening, through the medium of a loudspeaker, to the speeches of the ceremony inside. Here, at this royal function of this great association, in the presence of so many distinguished leaders of our profession, memory should have conjured up the life-stories of the great pioneers of medicine. We should have found ourselves thrilling at the thought of the fine traditions, that we were privileged to uphold, traditions observed and handed on, more glorious still, by Sydenham, Astley-Cooper and Florence Nightingale. The occasion and the company should have been able to stimulate feelings almost akin to awe, but memory plays the strangest tricks. Actually we were only able to remember that in the majority of English hospitals, it is more remunerative to be a cook than a fully-qualified nurse.

As a sequel to the victory of the Second Eleven in the Junior Cup, the final match of the Senior Inter-Hospital Cricket Cup will be played next week. The actual day and the ground have not been fixed at the time of going to press, but notices—large, unavoidable notices—will be displayed in the Hospital as soon as possible, in order to give all at Guy's the chance of seeing the team retain the Cup. Last year, we defeated St. Thomas' by one run, after one of the most exciting games ever seen in a Cup-Tie. The team was a good one, but this year it is even better and the hope of preventing Bart.'s from adding this Cup to their recently-gained Athletic Shield is a very well-grounded one. From the scores, which appear in this number, it will be seen that it has become quite a usual event for the team to knock up runs at the rate of two a minute, while on one occasion they added 140 runs in forty-five minutes. This seems to be what is meant by "brighter cricket," and, the weather being too hot for cinematograph entertainments, despite the announcements that it is cooler inside, next week should see large numbers of supporters, sitting beneath the shade of their straw hats or "boaters," applauding the hurricane hitting of their indomitable eleven. Two absentees from the team will be very much missed, for John Durr has now joined Gordon Ensor in the Park, where they are both rapidly approaching convalescence.

▭

Among the recent sucessful candidates at the higher surgical examinations were Messrs. B. L. Laver and K. N. Purkis, in the first Fellowship Examination of the Royal College of Surgeons, and Mr. W. D. Doherty, who obtained the degree of Master of Surgery at Cambridge. We offer our heartiest congratulations to all three.

▭

The Thirtieth Annual General Meeting of the Guy's Hospital Ladies' Association was held in the Nurses' Home on Monday, the 29th June. Sir Alfred Fripp presided and about 250 members attended. At the conclusion of the general business the Hon. Treasurer, Mrs . Fawcett, announced that, in addition to the usual money contributed, a special effort had been made this year to celebrate the Bicentenary of the Hospital and £1,000 had been subscribed and collected by the members for the endowment of a "Bicentenary Bed" in Victoria Ward. A member of the Association had started this fund with a donation of £100, another member gave fifty guineas and two others £50 each; £351 was made at the "Guy's Cottage" Stall at the Garden Fete held in the Botanic Gardens during the third week in May, and the balance was given by the Branches and individual members. A cheque for £1,000 was handed by Lady Bonsor to Sir Alfred Fripp who received it on behalf of the Treasurer of the Hospital.

At the end of the meeting the members attended the Garden Party given by the Governors and the Medical Staff in the grounds of the Hospital.

In response to the Hospital Bicentenary Appeal Mrs. Stanley Mason, Hon. Secretary of the Banstead, Sutton and Orpington Branch, organised a Garden Fete in her garden at Orpington on Saturday, June 27th; she was most ably helped by the members of her Branch, by friends of Guy's Hospital living in the neighbourhood and especially by Mr. Charles Turner, who rendered great service to the Association by all he did to help to make the Fete such a complete success. There was a very large attendance both in the afternoon and evening. All expenses were given, including the services of the Orpington and District Railwaymen's Prize Band, so that the whole of the proceeds of £160 will be given to the cot endowment fund of the Banstead, Sutton and Orpington Branch.

On Wednesday, July 8th, the Committee of the Tadworth, Walton-on-the-Hill, and Kingswood Branch of the Ladies' Association gave a Garden Party for which Mrs .Bruce Trinder very kindly lent her garden and grounds. There were many entertainments, among others a Dog Show organised by the Hon. Secretary, Miss Bonsor, and special amusements for children. Lady Bonsor presented the prizes to the successful dog competitors. The Garden Party was held from 3 to 10 p.m. and was very largely attended. £155 was made and this amount has been given to the Tadworth, Walton-on-the-Hill and Kingswood Cot Endowment Fund. This is the second special effort made by this Branch for the Cot Fund within the year, as in November last £136 was contributed as the result of a White Elephant Sale.

The Physiology of Sleep.

Paper read to Guy's Hospital Physiological Society by W. FERGUSSON HANNAY, 11th November, 1924.

(*Concluded.*)

In the early part of the 19th century everybody believed that sleep was brought about by the sinuses of the brain becoming distended with blood, and in that way the brain was poisoned by impure blood. To me this seems a very unphysiological method and one which nature would be unwilling to adopt. It is much more likely that chemical poisons, toxins such as lactic acid, cholesterin, leucomaines and others, having accumulated during the day, poison the system and produce sleep, which, necessitating a complete rest of the functional organs of the body, leaves the blood stream free to remove the excess poisons. There are, however, serious and weighty arguments against the toxin theory as it is called, which I shall mention when I discuss the question later. One of the reasons why congestion of the veins of the brain was considered a cause of sleep was because the veins of the retina, which pour their blood into the cavernous sinus thus having a direct connection with the vessels of the brain, were noticed to assume a dark purple colour during sleep, indicating turgid blood. Thus any theory of sleep dependent on the variations of the cerebral blood vessels, anæmia, excess of blood or variations in the blood pressure in the brain, may have a very great influence on the cause of sleep, but it is not the predominant cause of sleep. There are also a variety of different theories, in fact I have collected no less than 18.

The chemical theory of the production of fatigue substances or toxins is interesting, since these chemical products have been detected in the blood stream of sleepy subjects, although in most of the cases the actual source of these toxins is unknown. The theory fails in that a subject who is very tired and has collected an excess of toxins should be able to sleep deeper and longer, but this, however, is not the case. Overworked and overtired subjects have the greatest difficulty in getting to sleep, often lying for hours on their bed completely unable to get to sleep, whilst the subject, who never on any account does anything strenuous, obtains his eight hours sleep and often takes more. What about the baby who sleeps nearly the whole day, or the old man who dozes away the last days of his existence by the fire in an old armchair?

Owing to the short time at my disposal I am unable to enter into the other various theories of the cause of sleep, and can only refer to them as they help to prove and to disprove the theory, which I maintain is the true explanation as to how we enter that delightful and restful state, in which all is oblivion, and in which we even surrender our personality and our perception of what is "me" and what is "not me"—a state in which we lose, in fact, our "ego."

I consider that sleep is produced by one of two distinct factors coming into operation

(a) By the conscious or sub-conscious will acting by a "Centre" or a controlling part of the brain on the sympathetic nervous system, or

(b) A sympathetic reflex acting in response to external stimuli.

Before going any further let us consider the functions and possibilities of the sympathetic nervous system.

Here is a nervous system which is capable of functioning successfully quite independently of the higher nervous centres, the brain and the spinal cord. If we follow its activities in detail we shall see that it is capable of acting and does act on all the various structures and organs of the body. Let us take the largest system in the body, the vascular system. By means of its vaso-motor nerves it sends fine filaments to every artery of the body except the vessels of the brain. Thus the sympathetic system is able to constrict the blood vessels and cause the blood to flow to any desired portion of the body. This it does when it takes over the duties of the brain and spinal cord which these relinquish on going to sleep, sending blood to the viscera and to the extremities, and producing anæmia of the brain. This change in the direction and relative volume of the blood stream is of a

real physiological importance. Sleep, it is universally admitted, is a time of physiological repair and nutrition. The lessened rate of flow of the blood through the brain during sleep produced by the vaso dilation of the sympathetic system converts the blood stream from a *functional* circulation, due to endormosis or the taking of energy from the cells, to a *nutritive* circulation by exormosis. A new problem arises from this variation of the cerebral circulation. The cranium of an adult may be considered as an air tight box of unalterable dimensions, and since nature abhors a vacuum something must take the place of the lessened volume of blood in the cranium. It is obvious that the brain volume cannot be altered with any great rapidity. Something must, however, take the place of the blood, and this lessened volume is made up by the secretion of cerebro-spinal fluid by the choroid plexus. The choroid plexus is stimulated to secrete cerebro-spinal fluid by the presence of waste matter from the brain and by an excess of carbondioxide. This increase of cerebro-spinal fluid would necessitate a decrease in volume of blood, producing unconsciousness. This is another argument for the supporters of the toxin theory, and it may be an indirect cause of sleep. The choroid plexus sends back a message to say that the CO_2 in the blood has reached a very high percentage and cerebro-spinal secretion is essential. Such a message would be dealt with by the sympathetic nervous system and would not reach the brain any more than the messages which are being constantly sent out by the viscera. Secretion follows as a result of a sympathetic reflex. But then why sleep? Such a secretion can act and does act just as efficiently during the day time. Thus, I do not think that the production of poisons is of necessity a cause of sleep as these poisons can be and are removed during the daytime. But supposing that these poisons are not removed rapidly enough and accumulate, gradually reaching a stage where it is not possible for the blood to carry on its normal functions. Slowing down all the functional activities of the body, however, enables the system to concentrate on the removal of these poisons. This is the toxin theory.

Again the fact that sleep is refused to a patient who has overworked himself may be due to the fact that the toxins having accumulated to an enormous extent have set up a counter irritant, which, acting on the sympathetic system, prevents it from acting on the various organs of the body to produce sleep. Thus, I am prepared to accept the toxin theory as an aid to sleep, but I maintain that sleep is essentially initiated by the sympathetic nervous system.

Before dismissing the subject it is interesting to note that, although continued insomnia will kill a man in six days,—this is the reputed capital punishment which the Chinese used during the last century,—subjects, who are unable to sleep because they have been overworking, always eventually fall asleep. Since this is the case these toxins can be removed by merely resting the body. Sleep, however, has far more vital functions than that. A man may lie down in a dark, quiet room and make his mind completely blank for hours; and, yet since he has not fallen asleep, he will get up weary and more tired than before he lay down. On the other hand the man who has snatched a few moments sleep will wake up completely refreshed. Thus sleep has some specific functions by which it refreshes our psychic activities.

To return to the sympathetic nervous system we note that by its connection with the mid brain and through the oculomotor nerve with the eye the sympathetic nervous system acts upon the pupil of the eye causing the contraction of the iris, so characteristic of genuine sleep, and also the upward rotation of the eyeball, due to the recti muscles. The action of the cardiac branch of the sympathetic is as we all know one of acceleration. Yet in sleep the heart rate is slowed and the blood pressure lowered. We can only account for this by saying that the stimuli, which the sympathetic is sending to the heart through the cardiac branch during the day time, cease when the subject sleeps, giving the vagus an opportunity to slow the heart rate. This may also account for the lower respiration.

From the above facts it is obvious that the sympathetic nervous system plays an important part in the production of sleep, and in the regulation of the functional activity of the various organs. May I repeat my first clause in my theory of the cause of sleep: "By the conscious or sub-conscious will acting by some 'centre' or controlling part of the brain upon the sympathetic nervous system." That such a centre exists is not universally accepted, but

Manthom and Haberman claim to have isolated a centre in the brain which they declare contains a sleep switch. This centre is placed in the superior part of the brain stem in which the oculomotor nuclei are likewise embedded. Since we have a will or highly developed functional cerebrum, there is no reason why the will should not decide on its own accord to give up its supremacy to the sympathetic nervous system and enjoy a peaceful half hour. This is undoubtedly the case when a person determines, regardless of whether he is tired or not, to have a sleep, and this also accounts for the fact that a large percentage of people do not go to sleep because they are tired, but because they are in the habit of going to sleep at such and such an hour. Habit undoubtedly plays a very important part in the question of sleep—so much for the first clause.

The second: "A sympathetic reflex acting in response to external stimuli" does not require explaining at any great length. Thus quiet, darkness, monotonous sounds, the continual jolting of a train, and my dull and rather boring way of reading! all tend to set up a sympathetic reflex which is going to act on all the functional organs to produce sleep. The sympathetic nervous system takes control forcibly of the higher centres, but in most cases the will is generally quite prepared to relinquish its supremacy. Moderate warmth and intense cold are also conducive to sleep. According to Cappie intense cold produces a state of coma and not sleep. It drives the blood from the surface and congests the internal organs. Biologically if sleep were produced by intense cold it would be rather inconsistent as nature would inevitably defeat her own ends, since the victim must freeze to death if he falls asleep. This leads me on to another interesting though rather generalised theory, known as the Biological theory. This theory declares that we sleep by instinct. We sleep not because we are tired, but so as not to become tired. Primitive man, the theory goes on to explain, slept at night so as to be able to ignore the horrors of cold and darkness and the horrid noises of the beasts of prey all around him. He discovered that by sleeping he could be sublimely unconscious of all these terrors. When young, who has not gone to bed with his head under the pillow to avoid observing the frolics of the family ghost and longing to get to sleep quickly. It is only history repeating itself.

Another problem with which we are faced is "Do animals sleep?" Many authors claim that the lower animals never sleep in the same way that man does. Professor Wassermeyer claims that the lower animals, such as worms and animals without a higher brain centre and whose lives are merely a series of reflexes, never sleep. The domestic dog appears to be sleeping, but he will start up at the slightest noise. He spends three-quarters of his day curled up and half asleep, yet I doubt if he really sleeps in the way in which man sleeps. He never becomes sub-conscious. The hare has been studied with great care and has been noted to remain stationary for hours in an erect position with one ear in the air and one eye half open. Does he ever lose consciousness? If you pay a visit to a fowl house at night you will hear them keeping up an incessant chirping, and they seem very much awake if you switch a light on them. Perhaps it is only man with his highly developed cerebrum who sleeps. Since he uses his brain to an extent that no other animal is able to do, and since sleep has a special refreshing action on the psychic activities of man, other animals may find that mere bodily rest is sufficient to restore their vitality.

In turning from the physiological to the psychical study of sleep I can only point out my complete ignorance on the subject and draw your attention to a few of the accepted views and problems in connection with the psychology of sleep. Dreams unfortunately can only be studied by subjective methods—introspectively—with the twofold objection that the observer is simultaneously subject and object, and also that they can only be apprehended as a record and not directly, being therefore indistinct and confused. From a physiological point of view we can state that authors have claimed a rise in blood pressure at the time when the subject is presumed to have dreamt. Durham claims that during dreaming the pulsations become increased in rate and magnitude. Trömmer tells us that the earliest age that an individual is thought to have dreamt is ten months. This is rather a bold statement since dreams can only be detected by movement of the facial expression, and a ten months' babe would be unable to narrate its own dream. Facial movements might have some other origin.

Women dream more and also require more sleep than men. Dreams may be said to be a plainly conscious manifestation of psychical ac-

tivity during sleep. Yet when the dreams are vivid enough we can distinguish between the "self" and the "not self." We may class dreams as "Representative" and "Presentative." Representative dreams are dreams centrally initiated and caused by the autonomic excitation of the cerebral regions. These dreams have their origin in the occupation and sensations of the preceding hours or days or some even more distant event. Such dreams are the effect of the psychic working of the mind and are purely memory. Presentative dreams are due to stimulation of the end organs and the functional activity of the various organs, the visceral, muscular and vaso-circulatory systems. It must be remembered that any stimuli received by the cerebrum when it is in a subconscious or semiconscious state will not be recognised in their crude form and the mind will have to receive such a stimulation in terms of everyday life. Thus, if we stretch our feet out involuntarily during sleep it may give rise to the familiar dream of falling from a height. Some authors state there is no such thing as dreamless sleep — this is a difficult theory either to uphold or to condemn. Other authors, and I am inclined to sympathise with them, state that we do not dream during the second stage or that of very deep sleep, and that dreams only occur while we are waking and always terminate on awakening. These authors claim that during sleep the various external and internal stimuli which are being continually telephoned up to the brain are unappreciated because the mind is completely unconscious, and it is only with the gradual return of consciousness, and before complete consciousness is obtained, that dreaming occurs. It is doubtful whether we dream on going to sleep, and at any rate the actual loss of consciousness is almost instantaneous, and since this is followed by a "deep" sleep, in which we undoubtedly do not dream, it is almost impossible to discover whether we dream at the first stage of sleep or not. Dreams may often be the precursor of disease. This is natural since stimuli from the diseased tissue, although not registering pain during the day owing to the hundreds of other stimuli pressing to be recognised, can effect a stimulation of the cerebral cortex durring sleep when not in competition with other stimuli. Though why the dream should refer to the actual tissue involved in such a case, and yet seem quite irrelevant to ordinary external and internal stimuli, is a question of dispute. There are many incidents of such dreams. Gilen dreamt that he had a leg of stone and the next day the leg became paralysed. Arnoldo de Villanova dreamt that he was bitten on one foot and an abscess developed there a few days later. Pascal dreamt that he was being strangled by a noose and two days later had a violent attack of angina. Children and even adults have been known to micturate at night because they dreamt that they were voluntarily passing urine, the dream being initiated by tension of the bladder.

Dreams are more frequently caused by visual hallucinations, sometimes by auditory and rarely by tactile, gastatory or olfactory. This is due to the ease with which respective images may be called up to memory. At the hospital for the blind at Vienna, Dr. Stricher gives some interesting data about the dreams of the blind. Those patients, he writes, who are born blind never dream of seeing, only of feeling and touching. This also applies to children going blind before the age of five. Children going blind at the critical ages between five and seven occasionally had visual dreams. Children going blind after the age of seven had normal dreams, but the visual dreams faded away after any great length of blindness. In our dreams we are able to remember details which in the waking state were completely lost.

This brings up the question whether it is impossible for the mind to lose any impression. Psychologists claim that such memories, unable to be represented during the daytime, clamour for a hearing during sleep and constitute the foundation of a large number of our dreams. Owing to the absence of conflicting conditions, we are able to do almost anything in our dreams. The illusion of time is fast exceeding the real period. Pieron compares such rapidity of oneitic thought to the phenomena described as panoramic vision at the moment of of death. Maory writes that one night a bed pole fell on his neck, but before awaking he had enacted whole scenes in the French Revolution, ending by being carried off to the guillotine. Dreams may also be out of all proportion to the stimuli that causes them. Descartes writes: "A flea bit me, and I dreamt of a sword cut." Thus we see that the study of dreams is a stupendous one and being so vague may lead the student anywhere. Personally I consider that too much weight has been attached to the question of dreams, whereas in most cases they are an incoherent jumble of thoughts.

Lastly I would draw your attention to the devastating effect of insomnia. A period of sleeplessness reaching over more than five days is followed by serious complications which often prove fatal. Kleitman, of Chicago, managed to keep some male students awake for a period of 115 hours. The conclusions he came to were:—

(1) That drowsiness could be expelled by muscular activity.
(2) Insomnia up to 4 days had no effect on the appetite.
(3) No difference between the student who had suffered from forced insomnia for a few days and the student who had not.
(4) No variation of blood sugar or alkaline reserve in blood plasma.

But he noted a marked decrease in respiration, heart beat and blood pressure due to muscular relaxation of the sleepy subject. The knee jerk reflex, although unaffected during insomnia, disappear for a short time with the onset of sleep after insomnia. There is a case on record of three boys who made a vow not to sleep. After keeping themselves awake by continual activity for several days one boy fell asleep doing gymnastics on the fourth day. The second boy did the same on the fifth day, and the third boy, who was able to keep awake until the seventh day, died of nervous exhaustion when out riding. Agostini tells of cases where patients have kept awake for six or seven days, collapsing with symptoms of acute transitory amnesia, delirium, hallucinations, and mental confusion, and sleeping in a drowsy state for a period of eight weeks.

Insomnia produces a hypnotoxic property in the tissue fluids which when injected into the fourth ventricles of dogs produce a cellular lesion characteristic of insomnia as well as a desire for sleep. This hypnotoxic action is more pronounced in the cerebro-spinal fluid than in the blood serum. Marie de Manaciene kept ten 3—4 months old dogs awake for several days. On the fifth day four of the dogs were dead and the other six were so ill as to be quite hopeless. She noted the temperature fell to 50° F. Their blood count showed a fall of 5 to 2 million, whereas they only lost 5—13 per cent. in weight. In contrast to this we notice that a hungry dog will lose 50 per cent. of its weight in a similar period. We may therefore conclude that insomnia, though not injurious for two or three days, has very serious effects if continued to five or six days.

Thus, gentlemen, I will conclude by drawing your attention to the fact that sleep is a vital necessity to the life of man and that sleep has some, as yet unanalysed, property by which it refreshes our psychic activities. At some future date I hope that it will be an accepted fact that sleep is brought about by sympathetic nervous system acting either reflexly or directly under the influence of the will itself on the body and taking complete control of the body and also of the cerebrum.

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To a Fly.

[The following outburst is due to the annoying and continuous attentions of a persevering fly, which has we hope at last come to rest on a suitable paper.—ED.]

You dirty little filthy beast!
What devil sent you here,
To crawl about upon our feast,
And food with microbes smear?

Your plan's to thrust your hairy feet
In all the dirt you see,
Then come and rub them on my meat,
And wash them in my tea.

Carbolic makes you pretty sick,
And kerosene's as good,
They're both fine things to stop you quick
From poisoning wounds and food.

So don't come here, you little pest,
But keep away from me,
Or I shall do my very best
To kill you. Do you see?

Judgment.

FOR the second time in six months the CANDIDATE entered the examination room of the Royal College of Surgeons for his examination in Surgical Pathology. Rapidly he glanced around him at the examiners sitting chatting together in pairs before green plush tables covered with arrays of bones, bottled specimens and meats, heaped indiscriminately on large platters. He wondered which pair he would be sent to, feeling somehow that it would matter a good deal to him. Then the assistant who had called up him and the others in his group—the last to be examined that afternoon—told him off to a table.

As he walked towards it, he scrutinised anxiously the Distinguished Surgeon whose office it was to discover in 10 minutes whether he knew enough Pathology to be admitted a Member of his College. The Distinguished Surgeon was talking rather loudly to his Colleague. He had a reddish face, clean-shaven, snowy white hair, rather long, and wore glasses, which magnified his eyes. He spoke in a bluff voice with a trace of an accent—was it Irish?—and had a direct emphatic manner. The Candidate liked his looks and felt that he was not the type of examiner who indulged in sarcasm. Who was he? The Candidate ran over the names of the Examiners in his mind, and decided that he must be Sir Holman Waters, the author of a book on Abdominal Surgery, which he had found unreadable. Just knighted. Ought to be in a good temper!

The Distinguished Surgeon finished recounting to his Colleague what was evidently a fruity anecdote. Both laughed hilariously and looked up at the Candidate standing before them. He was beckoned to a seat. Contemplatively the Distinguished Surgeon's eye roved over the litter in front of him. With a slight grunt he picked out a neat square black topped bottle and handed it to the Candidate.

"What's the or-r-gan and what's the mattur with ut?" he said.

The Candidate took the bottle and examined its contents. It was obviously a testicle slit open towards the Epididymis. Could be nothing else. Systematically he began to go over its parts and aspects. The cord seemed normal, though there was a suggestion of a spiral twist. But not enough for a torsion. The epididymis looked pink and more or less normal. No sign of tuberculosis. The body of the testicle was the thing. It was certainly puzzling. In the front, extending nearly to the surface, was a mottled pinkish area, faintly streaked and striated with red, fairly clearly demarcated from the rest. Surrounding this, like a horseshoe was an area of pale greenish translucent tissue that looked like yellow rubber. He turned the bottle round. At the edge of the cut part the tunics floated loosely in the formalin. Not adherent, clearly. He turned the specimen round again and looked at the contrasting tissues. One of them was pathological. Which was it? The smaller area was vascular, the other wasn't. The horse-shoe shaped part looked, in fact, just like gummatous tissue as he had seen it in livers. Did normal testicle look vascular in a bottle? He couldn't remember. Well, what were the possibilities anyway? Congenital, traumatic, neoplastic, inflammatory. It certainly wasn't congenital. Traumatic? unlikely somehow. Neoplastic? His mind ran over neoplasms of the testicle, all more or less malignant. Carcinoma, sarcoma, cystic disease—certainly it wasn't any of these. He couldn't recall papillomas or adenomas of testicle. He'd probably get his head bitten off if he mentioned such things. He knew the sort of irritated voice in which the examiner would ask: "And how many papillomas or adenomas of the testicle have you seen?"—Pause, and weakly from him: "None."—"And how many have you ever heard of?"—Longer pause, and more weakly. "None"—"Well, is it likely that I am going to show you a thing that neither you nor anyone else has seen or heard of?"—and two marks drop with a thud.

If it isn't neoplastic, it must be inflammatory. Acute or chronic? Obviously chronic. What are the chronic inflammations of the testicle? Tuberculosis begins in the epididymis. Can't be that. Secondary to acute orchitis; Too circumscribed, and the tunics are free. It must then be a gumma. Anything else? Might be an infarct—anæmic, hæmorrhagic? But an infarct would be more wedge shaped and dead looking, one way or the other. If it's a gumma, which is the pathological part? Hell!

He looked up at the examiners. Both were looking searchingly at him with suppressed smiles. The Distinguished Surgeon said:

"Well, you've looked at it long enough." Repeats: "What's the or-r-gan and what's the mattur with ut?"

The Candidate clears his throat and begins: "Well, the organ is obviously a testicle"——Lord how feeble his voice sounded!

"Of course it is. And what's the mattur with ut?"

"'Well, I think . . . I'm not sure, but I think it is probably a gumma."

They both lean back and smile. Immediately the Candidate knows he has plumped wrong.

"It's a gumma is ut? And do you guess that or do you reach it by a process of deduction?"

Lord! he's going to be heavy! "By a process of exclusion, rather."

With mock interest: "Oh, do you? Well, now turn the specimen round. Look at the tunica vaginalis. What do you see?"

"It looks normal and is not adherent."

"Right. Now look at the cut surface. What do you see there?" He leans forward and points with a pencil at the mottled part.

"There's a circumscribed area with capillary hæmorrhages fairly well marked off from the surrounding tissues which looks pale and avascular—like india-rubber."

"Never mind about the surrounding tissue. That's normal testicle. Surely you can see that?"

The Candidate said nothing. It was something to know what was the pathological part of the specimen. The examiner continues: "Now do you see hæmorrhages in a gumma? And do you expect, in a chronic inflammatory condition like that to find the tunica vaginalis not adherent?"

The Candidate experienced in the pit of his stomach a feeling of acute discomfort. Beads of sweat broke out on his forehead. After a pause he said he didn't.

"So you see," continued the Distinguished Examiner, with a twinkle in his eye, "you have diagnosed a thing which it could not possibly be on any rational consideration whatever."

The beads of sweat grew in size, and the Candidate felt his underclothes clammy against his skin. Evidently this amicable looking old gentleman had forgotten what it was like to be examined. What did he want to rub it in for like that? Clearly the Candidate had misjudged him.

"Well, what do you think it is now?"

The Candidate took a few seconds to pull himself together. He determined to be brief.

"It must be traumatic or neoplastic," he said.

"Go on."

"It is unlikely to be traumatic since you would expect an exudation of fibrin on the outside, and adhesion of the tunics. Anyway traumas of the testicle don't look like that."

"H'm! go on."

"Then it must be neoplastic."

"Look at the edge of this hæmorrhagic part and tell me what you see."

"The edge is well-defined on three sides. On the lower side it is less well defined."

"Well, what sort of a tumour is ut?"

By this time the Candidate was getting angry.

"Presumably an innocent tumour. The only difficulty is that I don't know of any innocent tumour of the testis. The only tumours of the testis that I know of are . . . "

"Tut, tut, tut," said the Distinguished Surgeon. "All tumours of the testicle are rare anyway. How many have you seen? And innocent tumours can occur anywhere, in spite of the books. You'll realise that when you are my age. Well, now, put that down."

He picked up an elbow joint in bony ankylosis, and handed it to the Candidate.

"What comments would you care to make on that?"

Before making the required comments the Candidate said:

"Excuse my asking, but what kind of tumour *is* that, that you showed me?"

"A teratoma," replied the Distinguished Surgeon, grudgingly.

"But surely teratomata are all malignant!" expostulated the Candidate with ill-suppressed indignation.

"Oh, no. No, no, no. Not necessarily at all," said the examiner airily. "Now that bone?"

The Candidate, who by this time was not at his best, knew that bony ankylosis was always secondary to suppurative arthritis, but was slow to note that the lower end of the humerus had been fractured, and that the joint had probably been infected from without. Another four minutes were wasted. The Examiner then showed him a piece of membrane with a large blood clot adherent. The Candidate knew that it was a ruptured middle meningeal, but when the Examiner asked him

which was the outer, and which the inner side of the dura, he got the answer wrong. Anyway he would know if he were doing the operation, and it didn't matter.

Then the bell went, and he transferred himself to another table, where he felt he did fairly well in answering about syphilitic osteitis, gall stones, and calcification of arteries. The final bell went, and he made his exit feeling that the first Examiner had satisfactorily convinced himself that he was a Dunce and knew no surgery. He thought he had known the diseases of the testis fairly thoroughly, but he felt he had been handled in such a way that he had conveyed the impression of being able to do no more than recognise a testicle when shown one in a bottle. He experienced unpleasant misgivings.

. . . . . .

While the results were being prepared the Candidate walked feverishly up and down the spacious Hall on the ground floor at the foot of the stairs. A stream of ideas whirled through his mind. For the fiftieth time he began to revise his chances of passing. He felt that he had done a fairly good paper. Two questions—on the Pathology and Treatment of Stricture and on Carcinoma of the Œsophagus—he thought he had answered well. Two others on Depressed Fracture and Gallstones he was more doubtful about, but he felt he should have reached Pass Standard. Then there was one: "What may a Surgeon learn from observations on the Temperature, Pulse and Respiration of a patient"—on which he forgot what he had read, which was practically nothing, and based his answer on cases he had himself seen—two of concussion, one of middle meningeal hæmorrhage, two of empyema, several acute abdomens with peritonitis, a mediastinal tumour, three growths of bronchus, a secondary in the lung after an amputation for periosteal sarcoma, several osteomyelites and others. He had enjoyed that question, but it was quite impossible to know what had been thought of his answer. He had made notes of most of the Surgical cases he had dressed, and he hoped the examiners would be able to see he had not just invented all he had written down.

Then his long and short cases. What a little brick his examiner there had been! Why weren't they all like that? He had taken him by the arm and sat him down and talked to him conversationally about his long case, interjecting here and there, so that you hardly noticed them, relevant and searching little questions. He had realised how good the questions were, when he thought over his answers afterwards. He had also particularly appreciated the way Clodd had begun by asking him a sitter of a question on the signs of fracture. It always gave you confidence to get the first answer right. Curious how some examiners have the knack of putting you at your ease, and getting the best out of you, while others seem to rattle you deliberately, and make you appear an ignoramus even if you know the answers! How pleased Mary had been when she heard that he had been viva'd by Clodd! She had worked under him in the War, when she was a V.A.D. at Lady Evelyn Mason's hospital, and said that all the nurses and patients loved him, and that he was a beautiful operator—cheery, cool, deft, and invariably polite. Four years now since he had been engaged to her, and no nearer getting married than at the beginning! Poor darling, she would feel it almost more than he would if he ploughed again! That's the worst of these examinations. The more important it is for you to pass, the more you get the breeze up, and the stupider you appear to the examiners.

Surely the process of finding out in a short space of time how much a nervous candidate knows, and how much sense he has got, must be one that requires much technical skill. A good deal more, you'd think, than is needed to answer the questions properly. Yet how many of those blighters now sitting upstairs to pronounce his fate knew how to do it? The young ones, he found, were almost without exception better at it than the old birds who had been at the game for years and thought they knew all about it! Age, and boredom, and too long an experience seemed to induce in them a sort of ankylosis of their perceptive and imaginative faculties. Old Waters, for instance, obviously at heart a kindly though rather gruff old coot, had never meant to be beastly to him. He simply hadn't the imagination to realise the effects of his well-meant, though devastating remarks on a Candidate who was painfully aware that every mark, every fleeting impression counts. It must be a long time since *he*—old Waters—had sweated blood. He wouldn't even do it now, probably, if by accident he killed one of his patients. To be a good surgeon you would probably require a certain obtuseness of feeling, or at any

rate a sense of the imperviousness, the invulnerability of your Greatness. Examiners ought to be superannuated after forty-five, and examined in their examination manners and technique by a Committee of Candidates every 3 years, and kicked out for the least trace of rudeness or sarcasm. He knew several distinguished old gentlemen upstairs whom he and a large majority of his student friends would incontinently boot out of the Board. At the same time, he pondered, it must be trying for the examiners to have to come here every afternoon for 3 weeks or so in every quarter, and try to extract answers, like teeth, out of a succession of inarticulate, gawking, sweating, owlish-looking candidates like himself. Very trying to the temper! He wondered why they did it. He vowed he never would. Or at any rate if he did, he would model himself on little Clodd.

Why the deuce *did* they do it? Three explanations suggested themselves. Some might do it for money. Yet any of these birds, with their reputations, could make more in half-an-hour by removing an appendix in Park Lane or Belgrave Square, than by this appalling drudgery.

They might do it because they liked the sense of power it gave them. Some of them he felt sure—though not all by a long chalk—liked feeling that they held the fate of a number of unfortunates in the palm of their hands. Some of them apparently enjoyed seeing poor devils like himself in mental anguish. They took pleasure in making, incisive corroding little remarks in a mincing voice, and seeing the victim in front of them wince, and sweat and go pale. Very bad for their morals, it must be. Makes them self-important and pompous as you see them in pictures and busts. He looked around him at the Whiskered Surgical Celebrities who, in the petrified self-satisfaction of their sculptured immortality, complacently surveyed the hall and its restless, roving occupants. These are the stiffs we should venerate, the Luminaries of the Royal College, the Giants of the Past, to whose numbers, in his life time would be added probably the majority of the Illustrious Scientists upstairs. He wondered if they had decided on him yet!

Or they might do it because they wished personally to uphold the interests, the dignity of their great profession. Magnificent unselfishness! Inspiring devotion!

Or did they perhaps do it because they received a polite little note asking them to do it from some central authority or other? An appeal which it was bad form to refuse? He was probably grossly unfair to them in his present strained condition.

He began to wonder which was preferable. An attack in the Great War, or a Viva Voce examination. This was exactly how he had felt before "going over" at dawn. The difference was that the more you "went over," the less you minded it—he had found. The more you took examinations the more damnable it became each time. In an attack you came to a trench full of blokes with whom you were at any rate on *more or less* equal terms. No loading of dice. The fellow with the most guts, and speed, and presence of mind came out on top. Here the distinguished old gentlemen have such a pull on you! They can say what they like, but your tongue is tied. Tempting as it might be to answer back, it did not pay. The Candidate's mind went back to his last attack in the war in the big 1918 autumn offensive. He remembered extraordinarily clearly the sunken road from which, in the half light, he had jumped off; the hastily organised and somewhat ineffective creeping barrage; his anxiety as to whether Abbott would mess things up on his left.

Curious man Abbott. Scholar of one of our most glorious public schools, first in Greats, now a Don at Oxford, wonderful memory, brilliant at examinations—probably walk through this on his head—yet the most incompetent ass he had struck in France. Couldn't be trusted to take a platoon to the Divisional Baths without losing the way. Briefly he wondered what index examination results were of a man's merits. He remembered being wounded three quarters of an hour afterwards, and worrying how his company would get on under Abbott; and how that idiot in the First Aid Post had unnecessarily hurt him by shoving a probe into his skull. *He* was probably passed by the Committee upstairs or one like it. These thoughts gave him a certain comfort. After all he had been through the whole war and had done well in it. He retained a certain confidence in his essential ability—a confidence which was going to depend a good deal on what was decided on him by the amiable people upstairs. Good for them to have to go through the war as he had done, instead of being Great Sur-

geons at comfortable safe Bases, or in England, with Sisters and Matrons skipping and smirking around them, and relations of people like himself wringing their hands imploringly to them! Or did he deceive himself? Was he after all a Fundamental Mutt who had no right to expect to pass examinations?

A man appeared on the stairs. There was a silence, and the man said, "Will you please come upstairs, ladies and gentlemen?"

He ascended the stairs with a constricted hollow feeling in the depths of his abdomen, and entered a room with the other candidates. Outside the door the man began to read out the numbers of the candidates, who walked out in turn and were informed of their fate. His was among the last. As the numbers approached his, he felt that his intestines were undergoing volvulus and intussusception. The thought of Mary came to him, and he thanked Heaven that she was not there to share his anxiety. That would indeed have been unendurable. He felt he wanted to be sick. His number was called and he walked out.

A smallish, spectacled, middle-aged man with a scrubby black moustache was scrutinising a list.

"No. 1037, Mr. ——?" he asked.

"Yes?"

The man looked up. His pupils contracted slightly.

"I'm sorry, you've failed," he said, and handed a red paper.

With the red paper in his hand, and iron in his soul, the Candidate slowly walked down the middle of the wide staircase.

C. P. B.

[*In the above no reflection is intended on the Royal College of Surgeons or any Member of the Examining Board.*]

Some Memories of Guy's Past.

A Catching Malady.

As a pair of us were entering the hospital grounds one morning by the back gates, we happened to meet another friend as we were passing the old Anatomical Museum of those days.

It is now between fifty and sixty years ago but I can still clearly see his sad face, usually so bright and happy. His depressed countenance looked miserable. It pleased my humour at the moment to prey upon his unhappy state and to lower still more his mood by saying, "Hullo, Blank (we will call him by that name) what's the matter? Don't you feel well?" "I don't," he replied, "a bit liverish." "Liverish," I repeated, "no liver; you look to me more like smallpox. I shouldn't wonder if you haven't caught it, and are just now beginning to feel the effects. How are you off for being vaccinated?" "Oh, all right," he said; "as a kid, but not been done since." "What! not been done since, and you living in the midst of an epidemic, and smallpox all around you! Why, it's incredible! You're bound to get it, even if you are not in for it already. I should go and get vaccinated at once, if I were you, before it is too late."

With this generous advice, I parted solemnly from him, inwardly chuckling at my joke, and vastly pleased that my cynicism had, with small trouble, given him a good shock.

It seems that my words were taken by him more seriously than I had intended. I meant simply to rally him, for I was no more safe than he was, as few people then were re-vaccinated as a routine precaution, unless some special reason indicated it. He went, however, straight away, there and then to the public station and was again vaccinated.

I was sorry afterwards that I had been so thoughtless. If I had dreamt that he would have taken me so seriously I would not have said what I did. But it was too late to repent. The event was over and past. The inoculation, however, took and made a rather bad nondescript sore on his arm followed by a temperature and general rash. He felt too ill to get up. The eruption was pronounced to be smallpox, but modified, due to the fact of his having been vaccinated very soon after contagion.

It had, in a mild way, some of the characteristic appearances of small pox. The vesicle, although in places umbilicated, was not well marked. The verdict at the time was that the

more rapid processes in incubation of vaccinia had caused this milder inoculated disease to "catch up" with the slower, and more prolonged incubation of smallpox so that both had matured at about the same time.

For though the leaders in the profession then taught, in accordance with John Hunter's law, that a double zymosis in the same body, and at the same time, is impossible, here was a direct proof to the contrary.

Sir James Paget, in his work on Surgical Pathology, quotes Hunter's dictum. The modification was, therefore, due to vaccination having taken place at a very early stage, before the ferment of the first malady, variola, had got firmly established throughout his system, or blood stream, or wherever the process happens to be. There were those at the time who said that the rash was more like that of severe chickenpox than smallpox. The two were very alike, but it was very mild for smallpox. It did not cause much suffering to the patient and no pock marks were left. There seemed little room for doubt that when we met in the Park smallpox had already been contracted, but had not yet advanced beyond a very early stage, not enough established, to prevent the advent of another similar disease which, in its turn, was probably inhibited by not having free possession of the whole field, so that the result was as described above.

Had it, therefore, not been for my thoughtless, but fortunate jest, and consequent inoculation of vaccinia, Blank would have had the ordinary more severe smallpox of an unvaccinated person.

Perhaps some reader will tell us what would be the accepted explanation at the present time.

A Catching Melody.

There was a comic opera just then running in London which had in it a tune which took the fancy of this same Blank immensely. He remembered the air and the time, but could recollect the words of the first line only. He found, however, much pleasure in doing his best to recall and vocalise the sound of the melody at every opportunity.

We two were then living together in the same rooms, and he would fill up the pauses in conversation, etc., by sudden outbursts of the broken words, in correct time, but devoid of all musical note. Knowing no words but the first line he would continue the tune by note only, like this, "And the marquis said to him; Ra di da di da di dada." Further than this he could not go. Continuation was repetition only. Personally, I became rather weary of the monotony. So to inspire a little variety and merriment, I joined in with a mocking imitation and duet; the same ra di da, but louder and more ludicrous; so that as soon as he had finished the words of the first line, a loud and raucous duet would conclude the impromptu.

He never objected to the body and volume of my chorus, but seemed rather to appreciate it.

In due course Blank joined the Indian Army as Medical Officer, and left England to take up his duty in Bombay, while I remained at home in England.

After some years there was a meeting of the Medical Profession at the Imperial Institute in London, which I attended.

Much to my surprise I saw, and recognised, in one of the large rooms, my old friend Blank. Though altered by the process of time and the burning sun of the tropics, I had no difficulty in recognising the same old genial face of long ago. I hailed him with much fervour, so pleased was I to meet my old friend once more. He looked at me earnestly, but failed to recognise me, or recall my name. I let him have plenty of time, but it was in vain. I suddenly bethought me of the old song, and was inspired to try its effect on Blank's memory. To the utter dismay of all those standing around I, at once, broke out into the loud "Ra di da" and its comic accompaniments. They must have thought me intoxicated, especially as the music was emphasised by the old facial distortion and megrim. Not so Blank. He suddenly sprang forward and, embracing me, addressed me by name, saying, "I know now."

I never saw him again as he, soon after, went back to India, on the outbreak of cholera, where he unfortunately caught the disease himself and died at Bombay. He was a trustworthy and useful man, and a dear and genial friend, whom I shall always remember with affection.

A Catching Memory.

It was at this same meeting at the Imperial Institute that I noticed the presence of Edward Trimmer, Secretary of the Royal College of Surgeons of England. It was then a good many years since I had seen him last, but as there is only one Secretary at a time, his face is not easily forgotten by the thousands of stu-

dents who are attached to the London Hospitals. I had only occasion to meet him a very few times during my student days, and they were long ago, and those times were, when, with bent back and stooping shoulders, he seemed entirely engrossed in counting the bank notes or money which he was being paid preparatory to my various examinations. My work as Prosector at the College did not bring me in contact with him, as my work was far removed from his office.

At this meeting at the Imperial Institute he was standing talking on the landing, halfway up the staircase. It was not my intention to accost him, but to pass quietly by. Imagine my astonishment when he stepped forward and addressing me said, "How do you do, Mr. Chicken?" I was staggered. "How is it possible," I said, "for you to remember me and my name among the many thousands you must have seen since you met me? It is impossible." "Not at all; quite easy. I remember you quite well," he replied. I could hardly believe it, especially as I had just left a man who failed to recognise me, though he had seen me daily for years.

It is not often that we get such a striking contrast in what is known as "Memory."

In the obituary notice of Trimmer, which appeared in one of the medical journals shortly after his death, the allusion is first made to his wonderful and extraordinary memory, which not only was seen in ordinary facts of life, but in the official trivialities and unimportant details of his work during the many years he was Secretary to the College and which were such as no one would make an effort to remember.

Sir Squire Bancroft also, the actor, has a similar memory. He not only has a perfect recollection of the daily principal events of over sixty years ago, but the smaller insignificant trifles connected with them. They seem to have remained in the memory without any effort being made to retain them.

A Contrast.

The opposite, however, is unfortunately often the case. I remember a student of my own year at Guy's who was an example of this unhappy condition. He was a man of excellent physique and appearance, and certainly above the average in educational and literary knowledge. He was also a blue in athletics. He was popular among the men of his time, and I have no doubt would have had no difficulty in taking a good position in some calling in which a good memory is not an essential. He could recollect a wide range of odd bits and scraps of things he had read, but was utterly unable to retain or commit to memory any continuous series of facts where precision was necessary.

Anatomy, for example, was entirely beyond his power to retain for anything more than a very short period. He would stick at it earnestly and learn some part thoroughly, but he could not keep it; in an incredibly short time it was all gone, except, perhaps, what might be called a conversational outline. I remember him once coming to me after he had been reading up the fibula. He had thoroughly learned the methods of the three principal osteologists who described that difficult bone. It was at that time for each writer to classify the attachments and relations of the various aspects into groups of so many borders and so many surfaces. Each writer considered his own way the best for understanding the anatomical details, but my visitor criticised all three of them adversely, and suggested a plan of his own for grouping the borders and surfaces in such a manner as best to describe the various relationships. He was altogether beyond me in his knowledge of the subject and I was alarmed at my own ignorance and was convinced that the sooner I got up the fibula the better. I did so and then went to his rooms and asked him to tell me again of the new arrangement he had suggested as an improvement on the text-books. It was but a short time since his visit to me, but his memory of his anatomical suggestion, his description of the bone, and other people's description as well, were all gone. He had no knowledge of origins and insertions and surfaces and borders. He might as well have never seen a fibula. This was a type of his reading and work in all other parts of anatomy. It seemed as though the more recent acquirements displaced the facts that were previously occupying his memory.

It was most disheartening, for it was through no fault of his own. He could not retain anything requiring exact and continuous knowledge for more than a short time. It faded.

His choice of a profession had been most unfortunate, for during the six years that I remained with him at Guy's he never dared present himself for his First College.

He never qualified, nor did he take any University degree, although he had been at Oxford for a similar period as at Guy's, previously to his entrance at the hospital. He was not idle or dissipated. He was a steady worker, but to retain facts accurately in his memory was an impossibility.

O. W. Holmes, in his series of Autocrat papers, says that the most delicate stimulant of memory is the sense of smell. I have read the same observation by other writers, but my own experience does not confirm it. It seems to me that memory is with regard to the brain, something as "pain" is in regard to the body, a matter of tension. When a man is tired and slack his memory seems to get fainter, but that is no explanation of the diverse conditions described above.

R. C. C.

Correspondence.

The Need for an Exhibition of X-Ray Plates.

DEAR SIR,—During a recent visit to the Hôpital Necker, in Paris, among other sections, I was greatly impressed by the extremely fine and extensive exhibition of X-ray plates in the radiographic gallery.

A large portion of the Urological Clinic is situated on the first floor of a long building, which consists of numerous rooms, laboratories, consultation rooms, library, Medical Officers' room, etc., all of which open out into a passage which runs the whole length of this floor. This passage or gallery is well illuminated by ten to twelve windows, consisting of eight panes of glass, each of the upper four panes being superimposed by an X-ray plate, about the size of our own large size plates, which fits the frame and is fixed against the glass pane with the film surface facing outwards.

These X-ray plates are an admirable collection of radiographic studies of every conceivable genito-urinary condition, all being clearly labelled, and of such great interest that I spent well over an hour in passing through this gallery.

It has struck me very forcibly that such a gallery of radiographic plates, films, or photographs would not only be a great asset to Guy's, but is a necessity and should consist not only of genito-urinary conditions but of all typical surgical and medical radiographic conditions.

It is true that we have no long gallery here comparable to that of the Hôpital Necker and I doubt if any portion of the Gordon Museum could be adapted easily for such a purpose, but I think it quite feasible to have some similar arrangement in the various out-patient departments, in the corridors outside the various sets of operating theatres, or in the Wills Library.

I feel sure that if a collection of X-ray studies could be made available in this or some similar manner, it would prove of great value to all at Guy's and of enormous help to students for examination purposes.—I am, Yours truly,

VERNON E. LLOYD.

Biennial Dinner.

DEAR MR. EDITOR,—I am enclosing a list of the Guy's men who have kindly consented to act as Vice-Chairmen at the Biennial Dinner which, as you have already announced is fixed for Friday, October 16th, under the Presidency of Sir Alfred Fripp. K.C.V.O., C.B.—Yours truly,

ARTHUR W. ORMOND.

9, Devonshire Place,
Upper Wimpole Street, W.1.
14th July, 1925.

J. B. Howell, 1882 (Southampton).
A. E. Kinsey-Taylor, 1884 (Farnham Royal).
E. Collingwood Andrews, 1886 (London).
G. H. Metcalfe, 1888 (Suffolk).
P. N. Randell, 1868 (Bromley).
Major-General C. E. Pollock, C.B., C.B.E., D.S.O., 1891 (London).
John Young, 1891 (Bishops Stortford).
A. J. Howard, 1893 (London).
W. H. Pike, 1896 (Cheltenham).
E. F. Clowes, 1896 (Colchester).
H. R. Marsh, 1896 (Anerley).
Major D. P. Watson, D.S.O., 1899 (London).
F. B. Manser, 1901 (Tunbridge Wells).
H. C. Cameron, 1905 (London).
T. E. Carr, 1907 (Derby).
D. C. Druitt, 1909 (Petworth).
F. G. Lloyd, 1911 (London).
N. Stuart Carruthers, 1911 (Norwich).
L. Milton, M.C., 1912 (Orpington).
L. R. Broster, O.B.E., 1914 (London).
Kenneth Bates, 1919 (St. Albans).
E. J. Crisp, 1920 (Market Harborough).
G. Noot, 1921 (Dorset).

Reviews.

Bacteriology.

Bacteriology for Dental Students. By HERVEY WYATT. Published by The Oxford Medical Publications. *Price* 6*s.* 6*d. net.*

THIS handy little volume contains a concise and comprehensive account of all the more common micro-organisms with practical notes as to their cultivation and identification. A short description of the pathological results of the various infections helps to complete a book which should prove a useful introduction to the Science of Bacteriology.

General.

Lectures on Dyspepsia. By ROBERT HUTCHISON, M.D., F.R.C.P. Pp. 176. Published by Messrs. Edward Arnold & Co., London. *Price* 5*s. net.*

THESE lectures, delivered at different times, have been put together in book form, so as to cover fairly completely the subject of Dyspepsia. The main object of the book is to help the practitioner to differentiate between the organic forms of dyspepsia and the functional cases. Many useful suggestions are given in the matters of clinical investigation and differential diagnosis and, there being a commendable absence of unnecessary matter, the book is well worth reading.

An Introduction to Sexual Physiology. By F. H. A. MARSHALL, F.R.S. Published by Messrs. Longmans, Green & Co. *Price* 7*s.* 6*d.*

THE author of the standard English work on the Physiology of Reproduction has provided here a concise and clearly written synopsis of those essentials of the subject which alone the average medical student can hope to grasp.

The book, after recapitulating the known facts regarding the anatomy and physiology of the organs of generation and going at some length into the development of the fertilised ovum, discusses the question of the internal secretions of the reproductive organs. Here and in the chapters on "Heredity" and "Sex Causation" much interesting experimental work both old and new is recorded. The final chapter on "Fertility" reminds one—were such reminder needed—that the whole subject has a very definite and practical bearing upon the economic problems of the present day.

The Life of Sir William Osler. By HARVEY CUSHING. Published by Humphrey Milford, Oxford University Press, London. Two volumes. *Price,* 37*s.* 6*d. net* for the two volumes; 50*s. net*, Indian paper, for one volume.

THERE are few better ways of gaining encouragement in the pursuit of a difficult and, at times, disappointing profession, than by reading of the struggles and successes of those who have trod the same path and, overcoming all obstacles, marched gloriously to its summit. The life of Sir William Osler is bound to prove one of the most encouraging and stimulating biographies in the whole history of medicine. It contains the story of a young man whose horizon was far beyond the constricted outlook of his seniors and whose gift for detailed, painstaking investigation resulted in a revised system of medical teaching. His biographer has done well in making his work as much like an autobiography as possible. To a large extent Sir William's thoughts, ideas and ideals are expressed by extracts from his own writings,—letters, articles and books,—and in this way a much truer picture of the man is presented to the reader than if they had been described entirely by his biographer.

Vol. I is divided into two parts, containing respectively the Canadian period of his life and the United States period, while Vol. II contains an account of his life at Oxford. The work entailed in their preparation must have been enormous, and the biographer is to be congratulated on combining so large a collection of facts and anecdotes, culled from such a variety of sources, into such a readable, continuous and fascinating story.

The work will have a well-deserved popularity and will enrich many a library, however well it may be already furnished.

Sport.

Cricket.

1st XI. v. Old Charlton.

Played at Charlton, and resulted in a win for Guy's by 169 runs.

Guy's.

L. S. Williams, b Boxandall	0
G. T. Clarke, b Boxandall	16
L. Catchpole, b Hammond	73
J. G. Van Schalkwijk, c Fort b Allen	25
A. H. Curtis, b Hammond	45
G. Fellowes-Smith, b Hammond	0
J. Durr, c Hammond b Boxandall	5
V. R. Preen, c Boxandall b Hammond	54
S. R. Trick, b Hammond	2
W. H. G. North, not out	10
E. Fulford, not out	12
Extras	15
Total (for 9 wickets declared)	257

Old Charlton—Total, 88.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	17	3	43	4
J. Durr	16·4	4	36	6

Past v. Present.

Played at Honor Oak Park, on June 17th, the result being a win for the Present by 44 runs.

The game was played in perfect weather on an easy wicket, and the Past came nearer to winning than for many years. The Present batted first, the usual batting order being changed. A useful score was made before Williams declared, Clarke and Preen both hitting well, and Pye-Smith playing a more careful innings. Whitcombe kept wicket very well.

The Past put up a very good show in their innings, the last wicket falling just before the time for drawing stumps. Helder played a sound innings, and while he and Whitcombe were together there appeared a chance of a victory. Whitcombe hit extremely hard in making 67. Gray and Chase also batted well.

Scores:—

Present.

E. J. Pye-Smith, b Helder	66
L. W. Houghton, run out	0
W. H. G. North, b Calder	17
G. T. Clarke, st Whitcombe b Calder	73
G. Fellowes-Smith, b Calder	19
J. Durr, c Helder b Calder	10
L. Catchpole, not out	38
V. R. Preen, not out	61
Extras	8
Total (for 6 wickets declared)	292

A. H. Curtis, J. G. Van Schalkwijk and L. S. Williams did not bat.

Past.

L. B. Helder, l.b.w. Van Schalkwijk	57
G. T. Lindsay, b Van Schalkwijk	4
H. M. Gray, b Houghton	22
G. H. Ashbery, c Williams b Houghton	10
Allen Hancock, c Pye-Smith b Van Schalkwijk	8
D. M. P. Whitcombe, b North	67
R. G. Chase, not out	27
D. J. P. O'Meara, c Houghton b Van Schalkwijk	9
W. A. Corry, l.b.w. Clarke	12
D. M. Calder, c Pye-Smith b Durr	2
N. S. Plummer, c Williams b Durr	0
Extras	30
Total	248

1st XI. v. Bromley.

Played at Bromley, the result being a draw.

Guy's.

E. J. Pye-Smith, c Short b Moore	9
L. S. Williams, b Yolland	104
L. Catchpole, b Moore	19
J. G. Van Schalkwijk, c Gledhill b Cooper	58
A. H. Curtis, l.b.w. b Yolland	15
G. Fellowes-Smith, not out	33
G. T. Clarke, b Yolland	0
J. Durr, not out	17
Extras	12
Total (for 6 wickets declared)	267

Bromley—Total, 217 for 6 wickets.

V. R. Preen, L. W. Houghton and W. H. G. North did not bat.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	11	0	67	2
J. Durr	10	0	47	0
W. H. G. North	5	0	19	0
L. W. Houghton	6	1	21	1
G. Fellowes-Smith	7	0	21	0
G. T. Clark	4	1	30	1
E. J. Pye-Smith	1	0	5	1

1st XI. v. Wellingboro' Masters.

Played at Wellingboro' on June 24th, resulting in a win for Wellingboro' Masters by 3 wickets.

This was a very good game and the eleven were not disgraced in losing, the second defeat of the season. The Wellingboro' side included 3 County players and 6 Crusaders.

Guy's batted first and Williams soon began to make runs, the first wicket not falling till 50 were scored, his share being 36. The next few batsmen were less successful and it was not until North joined Fellowes-Smith, with the score 130 for 8, that a stand was made. The greatest credit is due to these two who took the total to 225, while the last wicket put on nearly 30. For the 9th wicket, while North

kept his end up (his share of the stand was only 8) Fellowes-Smith hit magnificently. He scored the first century of his career in 50 minutes, without a chance, and hit one 6 and eighteen 4's. North hit very well, when Fellowes-Smith was out, hitting one good 6, while Cann played a promising innings.

The Wellingboro' innings was notable for a really beautiful hundred by W. H. Denton. He never appeared likely to be out and made his runs out of 243 for 6 wickets. Knight also batted well. Guy's were somewhat handicapped by a greasy ball, rain having fallen between the innings.

Scores:—

Guy's.

E. J. Pye-Smith, b Sörensen	25
L. S. Williams, st. A. D. Denton b Knight ...	36
L. Catchpole, c A. D. Denton b Sörensen ...	13
J. G. Van Schalkwijk, c Knight b Sörensen ...	3
A. H. Curtis, b Sörensen	12
G. Fellowes-Smith, c R. B. C. Wright b Badham	103
V. R. Preen, c Sale b Sörensen	6
G. T. Clark, b Sörensen	0
L. W. Houghton, run out	0
W. H. G. North, c Whitely b Knight	35
L. W. Cann, not out	2
Extras	18
Total	253

Wellingboro' Masters—Total, 258 for 7 wickets. (W. H. Denton 137, R. F. Knight 41.)

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	25	4	106	2
L. W. Houghton ...	12	1	50	2
W. H. G. North ...	6	0	25	1
G. T. Clark ...	8	0	53	2
G. Fellowes-Smith ...	7	0	20	0

1st XI. v. Cuaco.

Played at Catford, on June 27th, and resulted in a draw.

Guy's.

L. S. Williams, c Horne b Weaver	64
A. H. Curtis, b Johnson	56
J. G. Van Schalkwijk, b Weaver	5
G. Fellowes-Smith, c and b Miller	0
G. T. Clarke, c Carper b Miller	12
V. R. Preen, b Miller	8
W. H. Dowell, b Miller	0
W. H. G. North, not out	12
W. Ruzzak, not out	8
Extras	11
Total (for 7 wickets)	176

Williams and Curtis put on 122 for the first wicket in 35 minutes.

Cuaco—Total, 225 for 8 wickets declared.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	20	1	93	5
W. H. G. North ...	8	0	36	1
G. T. Clarke ...	8	0	40	0
G. Fellowes-Smith ...	8	1	32	1
L. S. Williams ...	3	0	21	1

1st XI. v. Hampstead.

Played at Honor Oak Park on July 4th, and resulted in a win for Guy's by 8 wickets.

Hampstead brought down a weak side and were badly beaten. The wicket was very hard and Van Schalkwijk and North were quite dangerous at times; the former had most to do with Hampstead's poor score, for he bowled unchanged and besides taking 6 wickets had 3 catches missed off his bowling. Unfortunately Durr during his first over again put his knee out. It is extremely improbable that he will play again this season.

The Hampstead innings took just over two hours, but it took only 40 minutes to knock the runs off to win. Pye-Smith and Williams put on 105 for the first wicket, and the other batsmen scored faster. The second 100 took 40 minutes, and the last 140 runs only 45 minutes, the innings lasting two hours. Curtis and Fellowes-Smith both hit magnificently, Curtis reaching exactly the century and Fellows-Smith being caught off a mis-hit when four short of it.

Scores:—

Hampstead.

N. W. Limb, b Van Schalkwijk	9
H. G. Dunkley, c Williams b North	1
F. H. Plaistowe, c Curtis b Van Schalkwijk...	0
A. Bennett, b Van Schalkwijk	0
G. P. Mead, b North	40
H. M. Gray, b Van Schalkwijk	0
G. E. Toller, b Fellowes-Smith	18
M. H. Carpmael, b Van Schalkwijk	2
F. C. Morton, b Van Schalkwijk	10
R. L. Close, c Pye-Smith b Fellowes-Smith ...	9
A. O. Hoskins, not out	6
Extras	16
Total	111

Guy's.

E. J. Pye-Smith, c Mead b Bennett	44
L. S. Williams, b Mead	61
L. Catchpole, c Carpmael b Toller	41
A. H. Curtis, b Bennett	100
G. Fellowes-Smith, c and b Gray	96
J. G. Van Schalkwijk, not out	2
Extras	4
Total (for 5 wickets)	348

G. T. Clarke, V. R. Preen, W. H. G. North, W. H. Mybergh and C. E. P. Davies did not bat.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	20	5	52	6
J. Durr	1	1	0	0
W. H. G. North	10	1	29	2
G. T. Clarke	6	3	3	0
G. Fellowes-Smith	2·5	0	7	2

Inter-Hospital Cup Semi-Final.

Guy's v. London.

Played at Hale End, Guy's winning by 62 runs.

Guy's won the toss and chose to bat, but so bad a start was made that four of our best bats were out with only 31 runs on the board. The ball was kicking badly and needed careful watching, which it got from Fellowes-Smith and Curtis, who not only watched it, but hit it, and pulled the game round by putting on 52, before Fellowes-Smith was out for a sound 32. However, 85 for 5 was none too good, but with Curtis continuing to bat well and Clarke making a very valuable 21, Guy's reached the respectable total of 188, many more than at first seemed probable. The chief feature of Curtis's 91 was the way he "carted" the ball outside the leg-stump to the boundary.

When London went in they found Van Schalkwijk at his best, and his analysis of 7 for 62 was not only worked hard for, but thoroughly deserved. Marshall made 48 out of the first 66, and batted very well. The Guy's fielding was very keen, and Williams' catch in the slips was as brilliant a one as one could wish to see.

Guy's now meet Bart.'s in the Final.

Scores :—

Guy's.

E. J. Pye-Smith, c Gordon b Marshall	2
L. S. Williams, c Willis b Kendall	5
L. Catchpole, c Swyer b Kendall	2
A. H. Curtis, b Kendall	91
J. G. Van Schalkwijk, c Marshall b Kendall	9
G. Fellowes-Smith, st Willis b Marshall	32
V. R. Preen, b Kendall	2
G. T. Clarke, c Vince b Swyer	21
J. White, c Vince b Swyer	1
W. H. G. North, not out	8
L. W. Houghton, b Kendall	4
Extras	11
Total	188

London.

C. J. Sharp, b Van Schalkwijk	6
R. J. Vince, b Van Schalkwijk	0
L. P. Marshall, b Van Schalkwijk	48
S. G. Allden, b North	6
E. R. Willis, b Van Schalkwijk	0
J. E. Swyer, b Houghton	34
J. T. Burrell, c Williams b Van Schalkwijk	1
A. E. Gordon, c Curtis b Van Schalkwijk	1
Gwynn Williams, b Van Schalkwijk	6
T. G. Willis, b Houghton	9
E. Kendall, not out	2
Extras	13
Total	126

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	28	8	62	7
L. W. Houghton	12	4	18	2
W. H. G. North	19	8	26	1
G. T. Clarke	5	1	9	0

2nd XI. Results.

v. "M" Division Police.

Guy's, 163 for 9 (declared) (D. M. Calder 51; W. A. Corry 21).

"M" Division Police, 72 (D. M. Calder 6 for 22).

v. London Hospital—Semi-Final Junior Inter-Hospital Cup.

Played at Honor Oak Park, 3rd July. London batting first were dismissed for 96. Keen fielding was ably backed up by steady work by the bowlers, of whom Jones was best with 4 for 14. Corry and Dowell gave the Hospital a splendid start by putting on 67 for the first wicket, when Corry was out for a stylish 37. Dowell continued to bat soundly, and his 82 was a very good innings.

Scores :—

London, 96.

Guy's.

W. H. Dowell, b Waring	82
W. A. Corry, c and b Waring	37
W. Ruzzak, b Foote	7
D. M. Calder, b Waring	7
E. Britstone, c Lindsay b Waring	4
W. H. Myburgh, b Waring	2
E. Fulford, not out	21
G. J. Horton-Parr, l.b.w. b Waring	13
Extras	15
Total (for 7 wickets)	188

E. E. Evans, W. D. G. Jones, and A. J. D. Lewis did not bat.

Bowling Analysis.

	o.	m.	r.	w.
A. J. D. Lewis	5	1	14	1
E. Britstone	8	3	12	1
D. M. Calder	6	0	23	1
W. H. Dowell	7	2	13	2
W. D. G. Jones	4·1	0	14	4

. Great Brickhill.
Great Brickhill, 203 (E. Britstone, 3 for 21; D. M. Calder, 4 for 46).
Guy's, 1st Innings, 80 (G. J. Horton-Parr, 27; W. H. Dowell, 24).
Guy's, 2nd Innings, 108 for 6 (D. M. Calder, 68 not out).

v. Honor Oak.
Guy's, 144 (E. Fulford, 37; W. H. Myburgh, 30; E. E. Evans, 24 not out).
Honor Oak, 168 for 7 (W. H. Myburgh, 3 for 32).

St. Bart.'s—Final Junior Inter-Hospital Cricket Cup.

Played at Honor Oak Park, 13th July, Guy's winning easily. Bart.'s winning the toss, batted first and were all out for 73. They could do little with Britstone, who bowled really well to get the splendid analysis of 7 for 18. Our fielding was not too good, but good catches were made by Horton-Parr and Calder. Guy's also started badly, losing Calder, Dowell and Myburgh for only 7 runs, but Corry and Fulford played steadily, while later Horton-Parr, although missed several times, hit hard for 67. Fulford played a splendid innings and thoroughly deserved his century. He showed sound defence, and scored his runs all round the wicket. He and Britstone were undoubtedly the men of the match.

Scores :—

St. Bart.'s.

G. Tanner, c Calder b Britstone	15
P. Levick, l.b.w. b Calder	1
R. Standon, c Horton-Parr b Britstone	9
Nickolls, c Horton-Parr b Britstone	5
Parker, b Britstone	0
Pierre, l.b.w. b Myburgh	23
Stokes, st Horton-Parr b Myburgh	7
Guilfoyle, b Britstone	0
Edwards, c and b Britstone	0
Holmes, not out	5
Williams, c Calder b Britstone	4
Extras	4
Total	73

Guy's.

W. H. Dowell, c Guilfoyle b Standon	6
D. M. Calder, c Guilfoyle b Standon	0
W. H. Myburgh, b Guilfoyle	1
E. Fulford, not out	104
W. A. Corry, b Stokes	12
G. J. Horton-Parr, c Standon b Nickolls... ...	67
E. Britstone, l.b.w. b Nickolls	5
E. E. Evans, b Guilfoyle	10
C. E. P. Davies, c Pierre b Stokes	10
W. D. G. Jones, not out	23
Extras	29
Total (for 8 wickets)	258

A. J. D. Lewis, did not bat.

Bowling Analysis.

	o.	m.	r.	w.
E. Britstone	13·1 ...	5 ...	18 ...	7
D. M. Calder ...	9 ...	1 ...	25 ...	1
W. H. Dowell ...	1 ...	0 ...	13 ...	0
W. H. Myburgh ...	3 ...	0 ...	13 ...	2

Tennis.

The 1st VI. matches with Sutton, Ruskin Manor and the Air Force (Headquarters), were scratched by our opponents for various reasons.

On May 17th the 1st VI. met with their first defeat of the season by being beaten by Chiswick Park, 8 matches to nil.

The second reverse followed closely, for on May 22nd we were forced to yield to the Gallery L.T.C., 5 matches to 1.

Team.—E. E. Neser, H. Lewis-Philipps (Capt.), A. H. Musgrove, H. Trafford, H. C. Van den Broucque, A. H. Heesom.

The Gallery and Chiswick Park are two of the strongest London Clubs. Unfortunately on both occasions our team was not at full strength. These two reverses appear to have had a salutary effect for in the 1st round of the Senior Inter-Hospital Cup Tie versus King's College Hospital, on May 23rd, "the first" were in fine fettle.

P. D. B. Spence, our great Wimbledon player, turned out for the Hospital, and needless to say won all his matches.

This was all very excellent as King's were the holders of both Senior and Junior Cups, having wrested them from us after a hard fight last season while Spence was away at the French Championships.

D. Lurie had come far from the quiet and sunny reaches of the Cherwell to partner Spence in the doubles.

The arrangement was that Lurie was to take as many shots as he liked and Spence would have the others. The combination was nearly perfect. As soon as Lurie grew tired of hurling his massive form from one side of the court to the other he would gracefully allow

Spence to turn on his heavy guns, with devastating effect.

In the singles H. Lewis-Philipps had an Homeric fight with Munroe. Philipps lost the first set at 4—6, won the next at 6—4, and took the third at 10—8. A very plucky effort.

Spence met Hassan, who is a reserve Davis Cup man for India, in the singles and won with ease in two straight sets. The whole team played well and won the match, 8—2.

Team.—P. D. B. Spence, E. E. Neser, H. Lewis-Philipps (Capt.), D. Lurie, H. Trafford, A. H. Musgrove, V. Hoakai (singles).

Surrey County Summer Competition (Junior).

We were obliged to scratch to the Winterbrook, L.T.C. in the second round owing to the Senior Inter-Hospital Cup Tie.

The 1st VI. defeated Upper Sydenham on May 19th, at Honor Oak Park, by 5 matches to 1.

Rain prevented play at Perivale against University College Hospital, on May 27th.

On May 30th the 1st VI. defeated Beddington Park, on their courts, 6—3.

June 3rd, at Honor Oak Park, the 1st VI. defeated the United Services (Chatham) after a keen game, 7—2.

Team.—E. E. Neser, H. Lewis-Philipps (Capt.), A. H. Musgrove, H. Trafford, F. Ratnagar, H. Van den Broucque.

On Saturday, June 6th, came our third defeat of the season, when our 1st VI. journeyed to Surbiton and lost 5—4, but a week later this result was reversed on our ground, when we won, 6—3.

Senior Inter-Hospital Cup Tie, (2nd Round).

On June 7th, our 1st VI. went to Chiswick to meet St. Thomas's. P. D. B. Spence was again in our team. We won with ease, 11 matches to nil.

Team.—P. D. B. Spence, E. E. Neser, H. Lewis-Philipps (Capt.), D. Lurie, H. Trafford, F. Ratnagar.

Junior Inter-Hospital Cup (1st Round).

Our 2nd VI. met King's College Hospital 2nd VI. (Cup holders), on May 26th at Honor Oak Park.

We lost by one match after a very hard fight.

Singles—

F. Ratnagar beat Cogswell, 6—1, 10—8.

L. Parker Tupling beat Taylor, 6—2, 7—5.

A. H. Russell beat Kohnston, 7—5, 0—6, 6—4.

H. Van den Broucque lost to Albuquerque, 2—6, 6—4, 6—8.

S. Cohen lost to Collis (Irish Rugby International), 4—6, 6—3, 4—6.

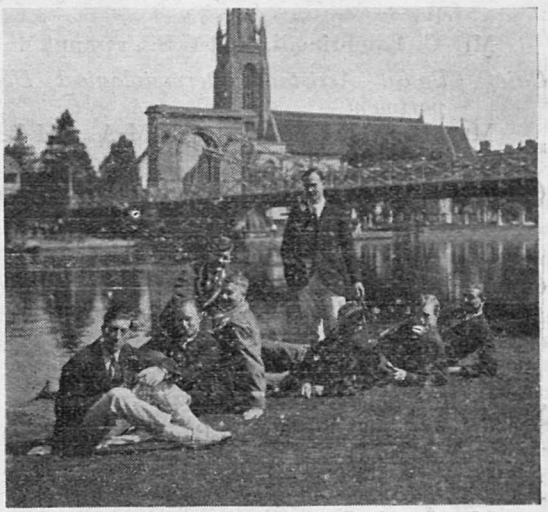
D. A. Newbery beat Thornton, 6—4, 6—1.

Result 4—2 to Guy's.

In the doubles we were not so strong and lost, 6—3.

Team.—F. Ratnagar, H. Van den Broucque, A. H. Russell, S. Cohen, J. C. Neely, L. Parker Tupling (Capt.).

The Hospital "Eight" at Marlow.



Left to right.—C. G. Townsend, W. S. Grove, V. H. Richmond, E Clayton-Jones, R. F. Prichard, E. C. Huddy, W. H. Miller, K. S. Keele. Absent, E. T. Clifton.

Hospital Information, etc.

House Appointments.

THE following appointments and re-appointments have been made by the Treasurer upon the recommendation of a Staff Meeting (to date from October 1st, 1925):—

Medical Registrars and Tutors—

Dr. J. M. H. Campbell, M.D.
Mr. G. C. Millis, M.C., M.A., M.B., B.Ch.

Medical Assistants—

Mr. A. A. Osman, L.R.C.P., M.R.C.S.
Mr. E. R. Boland, L.R.C.P., M.R.C.S.

Surgical Registrar, Tutor and Assistant—

Mr. J. Gaymer Jones, M.S., F.R.C.S., to Mr. Steward (re-appointment).

Obstetric and Gynæcological Registrar—

Mr. G. F. Gibberd, M.B., B.S.

Chief Clinical Assistant and Registrar, Ophthalmological Department—

Mr. C. Halstead, L.M.S.S.A., to Mr. Ormond (re-appointment).

Chief Clinical Assistant and Registrar, Ear, Nose and Throat Department—

Mr. C. Gill-Carey, F.R.C.S.Ed., to Mr. Layton (re-appointment).

Chief Clinical Assistant and Registrar, Orthopædic Department, with charge of Workshops—

Mr. C. Lambrinudi, F.R.C.S. (re-appt.).

Chief Clinical Assistant, Dermatological Department—

Mr. G. C. Millis, M.C., M.A., M.B., B.Ch.

Chief Clinical Assistant, Children's Diseases Department—

Mr. Osman, L.R.C.P.,M.R.C.S. (re-appt.).

Chief Clinical Assistant, Actinotherapeutic and Electrical Department—

Mr. J. F. Carter-Braine, F.R.C.S. (re-appointment).

Junior Assistant Bacteriologist—

Mr. F. Marsh, L.R.C.P., M.R.C.S. (re-appointment).

Resident Medical Officer, Bright Ward—

Mr. A. T. Fripp, M.B., B.Ch.

Assistant Anæsthetists to the Hospital—

Mr. O. Halstead (re-appointment).
Mr. K. M. Woodruff, M.B., B.S. (re-appointment).
Mr. K. O. Parsons, L.R.C.P., M.R.C.S.
Mr. H. W. Harvey, L.R.C.P., M.R.C.S.

Anæsthetist to Bright Ward—

Dr. E. A. Scott, L.R.C.P., M.R.C.S. (re-appointment).

Demonstrator of Anatomy, whole-time—

Mr. R. Brooks, M.B., B.S.

Demonstrators of Anatomy, part-time—

Mr. W. R. Spurrell, B.Sc., L.R.C.P., M.R.C.S.
Mr. K. O. Parsons, L.R.C.P., M.R.C.S.

Demonstrator of Pathology, whole-time—

Mr. R. D. Passey, M.D.

Demonstrators of Physiology, part-time—

Mr. E. R. Boland, L.R.C.P., M.R.C.S.
Mr. W. R. Spurrell, B.Sc., L.R.C.P., M.R.C.S.
Mr. M. Maizels, M.D.

Demonstrator of Pharmacology—

Mr. M. Maizels, M.D.

Anderson Demonstrator of Clinical Chemistry—

Mr. W. W. Payne, M.B., B.S.

Griffiths Demonstrator of Pathology—

Mr. J. F. Carter-Braine, F.R.C.S.

Demonstrator of Chemistry, whole-time—

Mr. H. C. Bell, M.A.

Demonstrator of Physics, whole-time—

Mr. T. W. Adams.

Demonstrator of Biology, whole-time—

Mr. L. C. Fox, M.A.

Demonstrator of Operative Surgery—

Mr. K. O. Parsons, L.R.C.P., M.R.C.S.

Demonstrators of Prosthetic Dentistry—

Mr. K. G. Sharvill, L.D.S.
Mr. F. A. Walker, L.D.S.

Demonstrators of Operative Dentistry—Morning attendance—

Mr. H. E. Spencer-Payne, L.D.S.
Mr. K. Hooper, L.D.S.
Mr. S. P. Meacock, L.R.C.P., M.R.C.S., L.D.S.
Mr. K. F. McAlpin, L.D.S.

Afternoon attendance—

Mr. E. A. Lloyd, L.D.S.
Mr. H. L. Messenger, M.C., L.R.C.P., M.R.C.S., L.D.S.

Dental Officer to Salomons Centre—

Mr. E. R. Bailey, L.R.C.P., M.R.C.S., L.D.S.

Dental Anæsthetist to Salomons Centre—

Mr. A. D. Marston, L.R.C.P., M.R.C.S., L.D.S.

Assistant Anæsthetists to the Dental School—

Mr. A. H. Todd, F.R.C.S.
Mr. A. T. Rogers, M.B., B.S.
Mr. E. R. Bailey, L.D.S.
Mr. H. E. Blake, L.R.C.P., M.R.C.S.

Dental Anæsthetists—

Mr. A. D. Marston, L.R.C.P., M.R.C.S., L.D.S.
Mr. E. A. Scott, L.R.C.P., M.R.C.S.

Registrar to the Dental Department for Children—

Mr. J. Stuart Smith, L.D.S.

Assistant Dental Bacteriologist—

Mr. A. Bulleid, L.R.C.P., M.R.C.S., L.D.S.

Guy's Hospital Medical School.

Scholarships in Arts and Science.

Entrance Scholarship in Arts of the value of £100.—Herbert Aidan Constable, Wimbledon College.

Entrance Scholarship in Science of the value of £100.—Divided between Walter Horace Allan, Preliminary Science Classes, Guy's Hospital Medical School, and Frederick Harwood Stevenson, St. Paul's School.

Confined Scholarship in Science of the value of £100.—William John Ferguson, Crampton County School and Guy's Hospital Medical School.

Guy's Hospital Dental School.

Scholarships in Arts and Science.

War Memorial Scholarship in Arts (£40 per annum for four years).—Joseph Cuthbert McNeill, Wadham College, Oxford.

Entrance Scholarship in Science (£40 per annum for four years).—Geoffrey Blake Palmer, Emanuel School.

T. B. JOHNSTON,
Dean.

Notice.

Prize offered by British Medical Association for Essay.

THE Council of the British Medical Association proposes to award, in March, 1926, a Prize of £10 for the best Essay on:—

"The disabilities that may be directly due to simple fracture (excluding separation of an epiphysis), (a) of the femur, (b) of the tibia, (c) of the fibula, (d) of the tibia and fibula (simultaneously injured); and the means to be adopted in the treatment of such cases in order to prevent or minimise these disabilities."

by a final-year Medical Student in one of the following Medical Schools:—

Guy's Hospital Medical School;
London Hospital Medical School.

(Note.—The Prize for 1924—5 was won by Mr. L. Hartstein, London Hospital Medical School.)

2. The Prize will be awarded to the Author of the Essay deemed by the Examiners to be the best sent in, but if no Essay received is considered by the Examiners to be deserving of a Prize, no Prize will be awarded.

3. The Essay, which must not exceed 5,000 words, should be clinical in nature, and *must include concise notes of 3 cases personally observed by the Student.*

4. Essays should be plainly written or typed on foolscap paper (one side only), and must reach the Medical Secretary, British Medical Association House, Tavistock Square, London, W.C. 1, *not later than January 16th*, 1926. Each Essay must be signed by a pseudonym, and be accompanied by a sealed envelope marked on the outside with the pseudonym, and containing inside a signed and dated statement that the Essay has been the *bona fide* work of the competitor, and that he or she has not yet passed the final professional examination, together with particulars of his or her name (including full Christian name or names), address and Medical School.

5. The Essays received will be adjudicated on by Examiners appointed by the Council

from among Members of the Association not resident in the area. The decision of the Council will be final.

ALFRED COX,
Medical Secretary.

British Medical Association House,
Tavistock Square, London, W.C.1.
June, 1925.

Pass List.

Royal College of Surgeons.

Final Fellowship.

K. N. Purkis.
J. D. M. Cardell.
G. M. F. Barnett.
M. Geaney.
C. C. Coghlan.
J. A. James.

L.D.S.

Final Examination.

June, 1925.

Part I.

L. Barclay.
R. Bliden.
H. F. Boosey.
G. L. N. Burden.
S. Casper.
P. S. Clarence.
H. J. Daneel.
G. E. Graham.
G. J. S. José.
A. S. Levy.
D. M. Timpson.
C. M. Veysey.
W. L. Benson.
L. J. Brown.
E. F. S. Dodd.
R. S. G. Gain.
P. Gerrard.
H. Hall.
R. H. Hancock.
E. R. Irish.
H. D. Kendrick.
J. W. Kingston.
R. E. Lillycrap.
E. A. Moss.
H. Myers.
R. M. Phillips.
F. S. Warner.
C. M. White.
E. C. Woodhead.

Part II.

L. Barclay.
H. F. Boosey.
G. L. N. Burden.
S. Casper.
G. E. Graham.
G. J. T. José.
A. S. Levy.
D. M. Timpson.
C. M. Veysey.
W. L. Benson.
A. T. Bremner.
T. O. R. Clancy.
E. B. Corry.
A. C. Evans.
G. Evans.
N. Harris.
W. R. Jenkins.
D. Kelvin Davies.
G. B. Longhurst.
A. E. Maclagan.
B. S. Mead.
H. H. Revill.
F. M. Ackroyd.

Publications Received.

The Antiseptic, The Indian Medical Record, Oral Health, The St. Bartholomew's Hospital Journal, The Navy, The Nursing Times, The British Medical Journal, The Dental Record, The Hospital Gazette, The Serpent, The Burma Medical Times, The Stethoscope, The Magazine of the London Royal Free Hospital School of Medicine for Women, The Charing Cross Hospital Gazette, The Long Island Medical Journal.

Papers by Guy's Men.

J. B. Parfitt, M.R.C.S., L.R.C.P., L.D.S. A Glimpse of the Mayo Clinic and its Dental Department.—*Brit. Dent. Journ.*, 1925, xlvi., p. 786.

C. Worster Drought, M.D. A Case of Arteriovenous Aneurysm of the Neck, with Homolateral Paralysis of the Cervical Sympathetic Nerve and Contralateral Hemiplegia with Aphasia.—Proc. Roy. Soc. Med., Clinical Sec., 1925, xviii., p. 40.

H. W. Barber, M.B. (1) Case of Generalised Lichen Nitidus. (2) Case of Vitiligo, with (formerly) Alopecia Arcata and Lupus Erythematosus. (3) Case of Persistent Circinate Erythema.—*Ibid.*, Sec. Dermat., pp. 51, 52.

G. B. Dowling, M.D. Adenoma, Sebaceum Tumours in a Boy aged 19.—*Ibid.*, p. 55.

Frank Cook, F.R.C.S. "Pelvic Inflammation in Women."—*Clinical Journal*, 1925, liv., p. 305.

Sir Wm. Hale-White, K.B.E., M.D., F.R.C.P. Diseases of the Middle Life.—*Practitioner*, 1925, cxv., p. 12.

Change of Address.

C. F. Morrison, M.R.C.S., L.R.C.P., 110, Buckthorne Road, Crofton Park, S.E.14.

W. Arthur Young, M.B., B.S., B.Sc., 11, Devonshire Place, W.1. 'Phone: Mayfair 495 and 4985. Home 'phone: Rickmansworth 200.

G. Tester Thompson, L.D.S. Eng., 166, East Hill, Wandsworth, S.W.18 Tel. Latchmere 5350.

Dr. J. Linklater, Shanklin House, Aston Lane, Handsworth.

Ian R. Vermooten, Lydenburg, Transvaal, South Africa.

Specialities.

"The Dorma"

DORMA MANUFACTURING CO., 25 and 27, Quadrant Chambers, New Street, Birmingham.

THE Dorma Manufacturing Co. have produced an appliance designed for the relief of sufferers from head noises, and throbbings in the ears, occasioned by irregular heart action and other causes.

It consists of a light aluminium ear frame, with two soft padded vertical pillows which rest on each side of the ear, whose orifice remains open. Circulation of air is maintained, and the ear left free from external pressure.

The device is extremely light in weight, and all parts are detachable. It can be supplied either single or double. The single type can be changed to either ear as desired. By relieving mental and nervous strain it induces sleep. A sample will be sent on application to the above address.

Birth.

BRIGGS.—On June 10th, 1925, at Hawes Hill Farm, Holyport, Berks., to Marjorie Kathleen (née Davis), wife of Percy J. Briggs, M.A., M.R.C.S., L.R.C.P. —a daughter.

Marriage.

BARROWCLOUGH—BURGESS.—On July 8th, 1925, at St. Peter's, Upwell, J. R. Barrowclough, M.R.C.S., L.R.C.P., of Crescent House, Upwell, to Helen A. C. Burgess, of Lode House, Upwell.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

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PASSIM

THERE may be, we do not say that there are, but it is just possible that there may be a few misinformed people who deny the perfection of Guy's Hospital as a hospital. They may find an opening for a jealous attack in the absence of a radiographic exhibition or in the unpopularity of the oxygen chamber or the College soup. They may object to the paucity of lifts in the Medical School or the fecundity of cats in the Park, but on one score they will find the Hospital removed from all possibilities of criticism. If nothing else, Guy's is up to date, and the latest changes show that it is, if anything, rather in advance of the times.

Next Monday is, most fortunately, a Bank Holiday and all out-patients will be excused from their almost ritualistic attendances at the various departments. They will, for that day only, discuss their manifold complaints with their friends instead of with their doctors, and the doctors will go fishing and golfing or will prune their rose trees or do whatever else is restful and congenial to them. That seems only reasonable, but reason, as often, is false. The doctors will do nothing of the kind. They will remain in their rooms, studying, and if you listen you will hear them learning, by means of mnemonics, the coming alterations in the ward nomenclature. Such phases as "When Auntie first grew Dropsical she Constantly took Jalap," will be heard on every tongue, this being the likeliest way of remembering that when Astley-Cooper becomes Dorcas, Charity will be Job. For the old order is changing, and wards are to be re-distributed and re-named. Most of the old names will be retained and some of the better-known Saints, like Luke, Naaman and Lazarus, will stay as patrons of the wards over which they now preside. But on Tuesday next there will commence a sweeping change of patronage in a large number of the other wards. We have studied these carefully and find that, in most cases, the ward names will merely change to new homes. Only in one case will the name disappear entirely, and that, we think, is where the Hospital is in advance of the times. For, despite all provocation in the form of strikes and the ducking of Deans and street bands and other hideous things, Charity still rests in the bosoms of the bourgeoisie, but at Guy's she will be known no more. Charity will try the patients of "Job," and her fair name will be erased from the "I.O.D." book. In the case of Martha a different situation of fair exchange is found. Martha will certainly become Cornelius, but Cornelius equally well becomes Martha. They give and take in true Christian spirit. But when Charity takes the names of Job, Job, steadfast as ever in adversity, becons to his old consort, Lydia. She, continuing a game,

somewhat after the style of "postman's knock," calls for Astley-Cooper, who slyly winks at Dorcas. Surely, now, you will think, Dorcas, looking up from her good works, would pause in her sewing to think on Charity. Not at all, she creates a most regrettable precedent by calling on an entire stranger and, to her bidding, comes none other than Christopher. Charity is left to grow cold without so much as isolation to call her home and Christopher rides in triumphant, probably with children all over his horse, just as he has been painted. "Cold as Charity, which is so chilly," runs the poem and we dam back our tears with difficulty as we see her driven out. Against St. Christopher we have nothing to say. As Patron Saint of the Bermondsey and Rotherhithe Memorial Ward there is none more suitable. Large-hearted, broad-shouldered yet gentle, he may have been thought more suitable to give his name to an adult ward than poor, declining Charity and, if so, then we might in time reconcile ourselves to the change. But what do we hear? It must be untrue, yet we hear it. It was found necessary to change one female ward into a male ward and the choice of the new name depended entirely on the materialistic fact that the ward-linen of the late lamented Charity was marked "Ch." Such unpoetical juggling with names savours largely of the cross-word puzzle, and we hope that the difficulty, which we understand is now being experienced, in altering the garments of Charity to fulfil their new rôles in Christopher will bring with it its own punishment.

The general post will take exactly a week and, with the one exception already mentioned, is above reproach. Patients will know for once how it feels to be a chair at Christmas and ward-clerks will know before their time how it feels to have a patient in "Queen." Everyone will be gloriously busy and no doubt old military habits will be revived in carrying out the very military orders that have been issued for the move. Units will unaccountably become possessed of the property of other units and the Quarter-Master-General will receive long lists of stores, lost in transit by the more innocent. The survival of the fittest will again come into play and wits will be sharpened. With all of this we are in complete sympathy, but with regard to "Charity" we can only say, in the touching words, with which Sparrick's Row has resounded every night for the last three months, as far as we are concerned :

"We'll take her back, if she wants ter come back,
The girl wot 'as stolen our 'eart."

▭

We very much regret the scant attention that we bestowed at school on our "pot-hooks" and "hangers." These were always very badly made and, in later years, our letters protruded both above and below the double lines so carefully drawn by our writing mistress. This inattention to detail laid the foundations of our present orthography, which is often quite indecipherable. To the strangeness of our writing is due the very obvious mistake that appeared in the last "Passim," when we congratulated Messrs. B. L. Laver and K. N. Purkis on their success in the *first* Fellowship Examination. This, of course, should have read in the *final Fellowship* Examination, and while offering our apologies for the error, we determine to take a correspondence course in hand-writing.

▭

Since the last number appeared Mr. T. G. D. Bonar has added one more success to his name by becoming a Master of Surgery of the Royal College of Surgeons of London. Having already obtained the degree of M.D. he becomes one of the very select triumverate, who have earned the two distinctions, the only others at Guy's who have done so being the Superintendent and Mr. W. H. Ogilvie. We congratulate him heartily on his high distinction.

▭

We also congratulate Mr. S. L. Williams and his team on the excellent fight that they made to win the Senior Inter-Hospital Cricket Cup against Bart.'s. The last hour's play was even more exciting than the last hour of last year's final. With four wickets in hand, Bart.'s wanted only fifteen runs to win, when Van Schalkwijk did the "hat trick" and left them with the same number of runs to get and only one wicket in hand. Under the circumstances a draw seems to have been the best result to so keen a game, but the excitement of the last few minutes wore to shadows the small band of enthusiastic supporters, one of whom has, in consequence, to grow an entirely new set of finger nails.

The Value of Radiography to the Dental Surgeon.

A Paper read before the Dental Society by H. E. SPENCER-PAYNE.

MR. PRESIDENT and GENTLEMEN,—The object of this paper is to endeavour to prove how invaluable the X-rays are to the dental surgeon, so invaluable that I consider every dental surgeon, in justice to his patients and to the responsibility which his profession places upon him, must in the future possess his own X-ray apparatus, or at least have convenient access to one.

I do not propose to describe the technique used in taking radiographs, suffice it to say that although the modern apparatus is not entirely fool-proof, the technique can, with a little practice, be sufficiently mastered to enable the operator to obtain quite useful results.

A radiograph is a record upon a photographic plate or film of the radiability of tissues through which the rays have passed. Soft tissues are very radiolucent, that is, they present little resistance to the penetration of the rays, and transmitting them almost as well as air does, will appear as dark shadows on the negative. On the other hand, calcified tissues are radiopaque and the bones or teeth show in the negative as light objects owing to the small amount of silver acted upon by the rays passing through.

Beginning with the densest or most opaque materials found in dental radiographs and proceeding to the most transparent, we have the following groups:—(1)Metallic crowns, bridges and fillings, (2) cements containing zinc or copper salts, gutta-percha filling material, (3) enamel of teeth, (4) dentine, (5) cementum, (6) cortical bone, (7) cancellated bone, (8) soft tissues and translucent cements, (9) root canals and foramina in bone, (10) resinous preparations and paraffin wax. Hence it is important to note that practically every substance used to fill root canals will be more radiopaque than dentine, and therefore clearly visible, with the exception of resinous preparations and paraffin wax, which are not often used. Translucent cements, on the other hand, are so radiolucent that cavities filled with them show such dark shadows in the radiograph as to make them appear almost unfilled.

To obtain radiographs of the teeth and jaws two general methods of procedure are used, each of which has its values and special indications. These are known as the *extra-oral* and *intra-oral* methods. With the latter only small films are used which are placed in the mouth opposite the area to be radiographed. In the extra-oral method large plates or films are used and the areas desired are brought into as close contact as possible with the plate by resting the face against it. The X-rays are then passed through the structures from the other side of the skull and hence must often pass through the entire face or skull in transit. Thus, if it is desired to examine the mandible in order to ascertain the presence or absence of a fracture in any part of it, or to examine the antrum of Highmore, obviously an extra-oral plate is called for, since it is not possible to obtain the whole of these structures on one, or even a series of intra-oral films. On the other hand, the extra-oral plates lack that delicate detail which is seen in intra-oral films, hence the latter are far superior for diagnostic purposes when the condition of the teeth themselves is in question.

The ability to interpret dental radiographs correctly is an accomplishment every Dental Surgeon should possess, for however good the radiograph may be it is of no avail if he is unable to interpret it correctly. The first requisite is a knowledge of the anatomy, physiology and histology of the parts he is to examine and their radiographic appearance under normal conditions. Then he must understand enough of the fundamental rules of radiographic technique to know when examining a radiograph, whether or not the technique involved in its making was correct or faulty, and if the latter whether or not the degree of fault is sufficient to render it so inaccurate as to be worthless. Lastly, he must be able to recognise the changes which appear in the radiograph as the result of pathological or abnormal conditions.

Let us first consider normal appearances. The appearances described are those seen in the negative, because the negatives themselves are made use of. If prints are made from the negative, for example, for purposes of book

illustration, much of the essential detail is lost. The teeth are set in sockets in the alveolar process, being attached by the periodontal membrane. The alveolar process is composed of cancellated bone which appears in the radiograph as a fine interlacing network. The sockets of the teeth are lined with a thin plate of dense or cortical bone known as the lamina dura, which is shown in the X-ray negative as a fine white line around the tooth. Between this line and the tooth, itself is a narrow dark space representing the peridontal membrane. These lines are important landmarks in the interpretation of radiographs, as their absence or alteration usually denotes some pathological condition. If a pathological process has its origin from within a tooth the first structure to be subjected to its influence is the periodontal membrane which naturally makes it the first structure to show abnormality. This is indicated by a thickening of the fine black line at the point of irritation.

It is also important to recognise certain landmarks in both jaws which are occasionally mistaken for abnormalities. For instance, in the upper jaw on the palatal surface just behind and between the central incisors is found the anterior palatine foramen, and this is frequently seen as a dark shadow in close relation to the apices of the central incisors and may thus be mistaken for rarefaction due to disease. Similarly in the mandible the mental foramen may be easily mistaken for a rarefied area in relation to one or other of the lower premolars. Sometimes, however, the connection of the mental foramen with the dental canal can be seen. Again, in films of the upper premolar and molar region the overhanging malar bone may cast a shadow which obscures the roots of these teeth. At a varying distance above the apices of the upper central and lateral incisors is found the floor of the nose, sometimes seen in the radiograph as a dark shadow which might be mistaken for a cyst or abscess cavity. Above the apices of the upper premolar and molar teeth is found the Antrum of Highmore. This structure varies much in its size and shape and the relation of its floor to the roots of the teeth. There may be a considerable thickness of bone between the tooth apices and the antrum or the former may come right up to the floor of the antrum and even form projections into its cavity, though when not diseased they are always separated from it by at least a thin lamina of bone. Sometimes the roots may appear in the film to be in the antrum whereas they may actually be located in its wall. The dark shadow thrown by the cavity of the antrum must not be mistaken for a rarefied area about the apices of teeth in close relation to it, and to avoid this mistake it is important to trace carefully the normal dark and light lines, of the periodontal membrane and lamina dura respectively, around the tooth apices.

Radiographs, as ordinarily made, are flat pictures, *i.e.*, they do not give any perspective, and it is generally impossible in such pictures to determine the relative positions of given parts of the objects shown except in two dimensions. We have two means of gaining more accurate knowledge of the relative positions in the radiograph. One is by making two views with the plate or film and the object in the same relative positions, but with the rays at different angles, perspective being obtained by merging the two images in a stereoscope. The other and simplest method is very useful in determining, for example, whether an unerupted tooth lies upon the lingual or labial aspect of the other teeth. The principle involved is thus explained :—(1) Given two objects standing in a straight line with the observer, the more distant will be covered by the nearer. (2) If the observer moves towards the right the more distant object will now appear to the right of the nearer one, and conversely if he moves to the left the more distant object will appear to the left of the nearer one. Applying this principle to radiographic films, if an unerupted tooth is to the lingual side of the other teeth, *i.e.*, farther away from the source of the ray and two films are made, one a little farther to the right than the other, the unerupted tooth in the second film will appear to be farther to the right than in the first film, whilst if the unerupted tooth lies to the labial side of the other teeth, *i.e.*, nearer the source of the ray, it will appear to be farther to the left in the second film than in the first.

An attempt should never be made to make a diagnosis from a radiograph without first making a complete clinical examination of the case, for, after all, the radiographic examination is usually made to confirm or to reject the clinical diagnosis and is not intended to act as the sole evidence of the pathological condition, except in some instances where the X-ray examination is conclusive without other evidence. For example, in the case of frac-

tures of the roots of the teeth, the presence of a foreign body, such as a bullet, hypodermic needle, broken broaches in root canals, etc., the malposition of an unerupted tooth, the presence of supernumerary teeth or the congenital absence of any tooth.

A radiograph does not picture disease. It only records the changes in the radiability of the tissues brought about by pathological processes or surgical interference. The conditions due to disease which can be most readily recognised are those affecting the calcified tissues, but even then one does not reproduce a picture of the disease itself, but only of its effects on the bone or tooth and it is only from experience gained by comparison and research that one can state that such and such a change from the normal is consistent with a certain infection or disease. It is impossible to tell if a cavity in the bone is filled with blood serum, infected tissue or with pus, the three substances having the same radiability and it is equally impossible to say, at first, whether a tissue is infected or whether antiseptics or other treatment has rendered it sterile, but after a certain time, from four to twelve months, we can decide whether normal bone is repairing the defect.

We will now consider some of the dental conditions for the diagnosis of which radiographs are useful or even essential.

Impacted Teeth.

It is unnecessary to say much as to the value of the radiograph for ascertaining the presence or position of impacted teeth, particularly third mandibular molars and canines. Often the radiograph is the only means of diagnosing their presence, and the information obtained of the size, number and direction of their roots, together with their position and relation to neighbouring structures, is of the utmost importance.

Unerupted and Misplaced Teeth (including unerupted Supernumerary and Supplemental Teeth).

In cases where the full number of teeth has not been erupted, or not erupted at the usual age when the missing tooth should appear, it is often important to know whether the tooth is in its proper position beneath the gum and is ready to erupt, or whether it is misplaced or even absent from the jaw altogether. Teeth have been discovered by the radiograph in all kinds of situations, e.g., in the frontal and maxillary sinuses, embedded in the vertical ramus of the mandible, etc. In such cases extra-oral radiographs are essential to their discovery.

Supernumerary and supplemental teeth are occasionally found unerupted and sometimes obstruct the eruption of the normal teeth, or they may themselves become impacted and give rise to pain or inflammation. In cases where a deciduous tooth is retained long after the time when it is usually shed, if often becomes a question as to whether the tooth should be removed or allowed to remain. The decision usually turns upon the point whether the permanent successor is present or not, and when present, if it is likely to erupt. The importance of this question is, in the case of the carious deciduous tooth, whether it should receive conservative treatment or be extracted. In the absence of a permanent successor, conservative treatment would be indicated.

Another reason for using the radiograph in such cases as the above is well illustrated by the following extract from a letter published in the *British Dental Journal*:—"A lady, whose daughters have been under my observation, brought one of them to see me, and I found that while the superior centrals were well through, the permanent laterals were retarded, the temporary laterals being in position, and only slightly loose. As the protuberance of the alveolus over the canine and lateral regions was considerable, I advised the removal of the loose temporary laterals and a loose canine, the other having been already shed. As the patient was nervous, I extracted these under nitrous oxide gas. I noticed that there was some absorption of the distal root surfaces of the laterals.

Subsequently the patient was again brought by her mother. During the interval the canines had partly erupted, but the laterals were absent and showed no signs of appearing. The mother charged me with having removed permanent laterals, stating that she had consulted three other dentists, who said that they must have been removed when the gas was given. In spite of explanations, the mother left far from satisfied. One can easily understand this, for to none of the critics did the thought of deficient dentition occur, but it is none the less unpleasant to one who flatters himself he can tell the difference between a temporary and a permanent tooth."

Now this case might easily have been the subject of a lawsuit, and there are, I think, two morals to be obtained from it. First, the writer of the letter evidently did not possess an X-ray apparatus or he would have taken radiographs as a mere matter of routine in such a case, and then probably would not have extracted the temporary laterals at all, or would at least have had the radiographic records to prove the absence of the permanent laterals. Secondly, it shows conspicuous lack of professional etiquette on the part of the three dentists who passed an opinion on the work of another without knowing the full history, and in addition shows their considerable ignorance in not suspecting such a comparatively common condition as congenital absence of the permanent laterals.

Orthodontics.

The X-rays are invaluable in the practice of this branch of dentistry. McCoy summarizes the necessity for using radiography in orthodontics under ten headings, as follows:—

(1) As a means of determining the presence or absence of unerupted permanent teeth before treatment is undertaken.

(2) As a means of determining the approximate size of unerupted teeth for which space must be made in the arches.

(3) To determine the state of development of unerupted teeth which are tardy in their eruption.

(4) To determine the approximate direction in which teeth are erupting and the relationship which they will bear to the line of occlusion when erupted.

(5) As a guide where it is necessary to make attachments to unerupted teeth, to aid in their eruption.

(6) To determine the most opportune time for the extraction of the deciduous teeth.

(7) To observe the movements of the roots of teeth and their relationship to other roots and structures.

(8) To determine the relationship of developing third molars to certain recurrent malocclusions, and also as a precaution so that steps may be taken to prevent these teeth from becoming a cause of mal-occlusion during their eruption.

(9) To observe non-vital teeth prior to tooth movement, to determine their fitness for movement or anchorage, and their state of health during the process of orthodontic treatment.

(10) In cases where anomalous teeth are present, to differentiate between the anomalous and normal teeth.

Buried Roots.

The presence of a piece of root left in the jaw after the extraction of a tooth will often cause much pain and discomfort to the patient, perhaps several weeks after the extraction and when the gum has healed over. The Dental Surgeon of whom advice is asked in such a case will frequently have difficulty in deciding the exact nature of the trouble, whether, for instance, a piece of root still remains embedded in the tissues or whether a portion of the tooth socket has become inflamed or broken off during the extraction and become necrosed. In the absence of a radiographic examination he will be led to a tedious and painful examination of the part involving probing or dissection of the gum in order to discover the trouble. With the aid of a radiograph this painful method of investigation will be unnecessary. These buried roots frequently become the seat of inflammation and infection and may be the cause of pain on one side of the face, neuralgia, a sinus on the gum or elsewhere, an infected antrum, pain on wearing a denture or more important still a source of continual septic absorption.

In youth a buried root will appear more distinctly than in an adult, and in the latter than in old age, owing to the different degree of calcification of the tissues. In old age they may perhaps only be distinguished from the surrounding tissues by their presence more or less above the alveolar line; or if below this line by the dark line indicating the periodontal membrane. Again, the root may be so small and thin that its radiopacity and that of the alveolus become the same or nearly so. Intra-oral films are best for discovering buried roots, owing to the greater detail obtainable on them. Before radiographing an edentulous mouth to look for buried roots it is essential that wax plates should be made containing short pieces of German silver or other wire set in them at various angles and places, so that some landmark may be seen in the radiograph by which to locate the root.

Solid Odontomes. Salivary Calculi.

Radiographs are extremely useful in diagnosing the presence of the various types of

solid odontomes and in discovering the presence of calculi in the salivary ducts or glands. These calculi are frequently the cause of trouble, either because of obstruction to the free flow of saliva from the duct, causing its distention or because of the pressure upon neighbouring structures.

Fractures of the Jaws and Teeth.

Fractures of the jaws are readily and painlessly diagnosed by means of radiographs and even when there is no displacement the line of fracture is generally recognisable as a dark line. Much help can also be obtained from radiographs in indicating the proper method of reduction and the necessary means of splinting.

Fractures of the teeth are easily recognised if the plane of the fracture is vertical to the plane of the film, but if the plane of the fracture is nearly parallel to the film there may be some difficulty in making a correct diagnosis.

Dental Caries.

Interstitial cavities in molars and pre-molars are often extremely difficult or impossible to detect, even when some obscure cause of pain suggests their presence. Similarly, caries under fillings may be completely hidden until considerable harm has been done. Radiography has not yet come into general use for discovering these obscure cavities, but Thomas says, judging from incidental findings in systematic search for infectious lesions, it might be well worth while to use radiography for this purpose. Caries, owing to its removal of the calcified tissues, shows up in the radiograph as a dark area. Frequently also in extensive caries there is recession of the pulp and the laying down of secondary dentine. This will show in the radiograph from the altered contour of the pulp chamber and when seen is always suspicious of caries, but may be the result of irritation of the pulp by a large filling.

Crown and Bridge Work.

No root should ever be crowned without first ascertaining, by means of a radiograph, its suitability or otherwise for the purpose. The root may be so unduly short or curved as to be quite unsuitable to sustain a post for the support of the crown, or the curve of the root may be so great that any attempt to fill the canal would result in perforation of the side of the root. These conditions could not be recognised by clinical means. Again, the root-canal may have been incompletely filled at some time and need refilling to prevent the risk of future apical infection or there may be apical infection already present. This must be ascertained and the infection, if present, cleared up prior to crowning the root.

All that has been said with regard to the operation of crowning applies equally to bridge-work. In addition it is necessary to be quite sure that the space to be bridged contains no buried roots or unerupted teeth which may at some future time appear at the gum level or cause some inflammatory trouble beneath the tissues. If radiography had been made more use of as a preliminary to the construction of bridges, bridge-work would not have fallen into the disrepute which it has attained.

Vitality or otherwise of Pulps.

It is impossible to tell from the appearance of the pulp in a radiograph whether the tooth is alive or dead. This must be determined by clinical tests. The pulp, be it healthy or putrescent, does not vary in density, so that its radioparency does not alter. In fact, in the radiograph we do not see the pulp, but merely the outline of the pulp chamber and canal. We can, however, often diagnose an infected or a dead pulp indirectly. If there is, at the root of a tooth a rarefied area due to an abscess or cyst, the tooth must be dead. In this connection Raper says, "It is so nearly correct that it is quibbling to dispute the statement that a tooth with a vital pulp is never abscessed, *i.e.*, never a source of periapical infection, while the tooth without a vital pulp *may* be abscessed. . . . I have never encountered a case of *periapical* abscess of a tooth with a vital pulp. (I am not considering here multirooted teeth with the pulp in one canal dead and septic and an abscess at the apex of the root, while the pulp in another canal remains vital or semi-vital). . . It is a homely comparison, but it expresses my view of the matter to say that a hose or rope cannot pass through a bonfire without being burned in two. Neither can blood vessels and nerves pass through an abscess to enter a tooth without being 'burned' in two."

Pulp Stones. Calcified Root Canals.

In some cases of severe pain of an intermittent character in a tooth the radiograph may show presence of one or more calcified bodies or "pulp stones," usually appearing in the ne-

gative as light, round or ovoid bodies, generally a little lighter in colour than the surrounding dentine of the tooth. On account of the minuteness of these structures they require the best conditions to reveal them and the intra-oral method alone is of any use.

Diseased pulps occasionally become completely calcified and in this case the pulp canal is obliterated and fails to show in the radiograph.

Root Canal Treatment.

One of the greatest benefits the dental surgeon derives from radiography is its use in diagnosing conditions of pulps and root canals and to check up the progress of root canal cleaning and filling.

It is an astounding but regrettable fact that a very large percentage of devitalized teeth show imperfect root canal fillings. Nodine places the percentage of devitalized teeth which have their roots either incompletely filled or not filled at all at 90, and says that fully 75 per cent. of these show destruction of the bone and infection around the apices of roots. McCoy says that, "As generally practised at the present time, this work can easily be termed the greatest shortcoming of dentistry. To those who recognise the uncertainty of results in this field, and the serious results which accompany failure to render sterile and to completely fill root canals, radiography offers indispensable aid."

It is surprising, in the light of the knowledge of all dental surgeons of the variation in length and shapes of roots, that it is not a more generally accepted rule to radiograph all dead teeth before filling them, since the radiographs hows so easily the disposition and number of roots and whether they be in their normal position or not, and whether they be distorted or maintain their usual shape.

Before considering the treatment of a dead tooth, a radiograph should be made to show the topography and number of the roots to be treated. If these are proved to be automatically within the range of treatment, and provided the infection is limited to the pulp and has not involved the periapical tissues to too great an extent, then an attempt may be made to remove all organic material from the canals and to open them up to the very apical foramen.

A small shadow around the end of a root does not necessarily indicate that conservative treatment is impossible. But on the other hand many root-canals are treated for weeks, or even months, when a radiograph would at once show the necessity for immediate surgical interference. Sometimes a root may contain an accessary canal which either leads to a separate apical foramen or may join the main canal again at another level. In the case of teeth in which the pulps have been killed by either accident or caries before the tooth has been fully developed, successful treatment will depend upon a knowledge of the condition of the apex, whether it be open or closed. Here a word of warning must be given, not to mistake the appearance of a tooth with an unclosed apex for one in which the apex is being absorbed as a result of infection. The radiographic appearances of these two conditions are, however, quite distinct.

The exact length of a root cannot be measured in all cases directly from the film on account of the angle at which the radiograph may have been taken. In the mandible where the sides are almost vertical, the X-rays can be directed in a nearly horizontal direction, consequently the length of root can be determined with a fair degree of accuracy, but in the maxilla, on account of its curvature and the direction of the rays magnification may take place, especially in mouths with shallow, flat vaults. In these cases, after opening up and enlarging the canal as far as possible, a fine diagnostic wire should be inserted and carried to the end of the canal, or as far as the operator has been able to introduce the broaches. A check radiograph can then be made to see if the apex has been reached. This will also determine whether any opening leading from the pulp chamber is a canal or a perforation. The process of treating and filling the root-canal should be followed up, step by step, with radiographs. These can be made without removing the rubber dam if the clamp is replaced by a ligature. When the canals are open to the end and the necessary treatment and sterilisation has been completed the canals can be filled. Another radiograph should be made to determine whether or not the root fillings extend to the apical foramina and seal the canals. If they do not, they should be removed and another attempt at filling be made. It is advisable to take radiographs of all newly treated teeth, first after six months have elapsed and later, perhaps once a year, or once in two years, to see that no infection occurs. This is especially important where roots have been the seat of periapical infec-

tion prior to the time when treatment was commenced.

Perforation of the side of a root is an accident which may be unavoidable, but is much more often due to faulty technique, the use of engine rammers being a common cause. A perforation will be detected in the radiograph by reason of the canal filling material being forced through the perforation, or previous to filling the canals by the passing through the perforation of the diagnostic wire. If, however, the perforation is on the labial or lingual side of the root it is difficult to determine its presence in the radiograph.

Broken broaches, drills and reamers in root-canals are clearly shown in a radiograph, indeed many students wish it were as easy to extract them from the canals as it is to prove their presence.

Root Resection.

The operation of root resection should never be performed without the aid of a radiograph to check and guide the operator. The radiograph will assist him primarily to decide whether or not a resection is indicated, and if it is, will give a fairly good idea of the field of operation. The radiograph will also show whether the root-canal has been sufficiently well filled so that the filling extends past the point where resection is to take place.

Immediately after the operation a radiograph should be taken to serve as a record and further radiographs, say every six months, to determine whether or not the process of bone regeneration is progressing satisfactorily.

Periapical Infections.

Infections of the periapical tissues are the most important with which we have to deal from a radiographic point of view because they often occur in the absence of clinical symptoms or signs, when radiographic examination becomes the principal means of diagnosis.

The vast majority of periapical infections result from infection following upon death of the pulp, the causative bacteria passing up the root-canal and gaining access to the periapical tissues through the apical foramen. Bacteria may possibly also in a small percentage of cases be carried by the blood stream from other parts of the body and lodge in the periapical tissues of pulpless teeth or teeth containing necrotic pulp tissue. This infection may follow dental caries and inflammation and death of the pulp, traumatism, or artificial devitalization by the Dental Surgeon. The use of arsenic for pulp devitalization, and the forcing of strongly irritating medicinal agents, such as formalin, into the periapical region are important predisposing factors leading to infection. Failure on the part of the Dental Surgeon to observe absolute asepsis in performing root canal operations is a very frequent means of introducing streptococci from the oral into the periapical tissues.

When the periapical tissues become affected from pulp disease there is at first an infiltration of leucocytes and lymphocytes which causes a thickening of the apical part of the periodontal membrane at the expense of the alveolar bone. This is the earliest sign and is a protective action such as one finds in the tissues around any infection. When the injurious agent, in this case the infected pulp tissue, is removed, the lymphocytes disappear and the tissue, if not destroyed by an infection of too long duration or too great virulence, returns to its normal state. The first thing to look for in a radiograph, then, is a thickening, or break, in the line of the periodontal membrane at the apex of the root, or in the case of accessory foramina or accidental perforation perhaps at the side of the root. Next, the bone about the apex should be examined for a rarefied area, and the presence or absence of the lamina dura noted. Then the periphery of the apex should be studied for evidence of roughness. When any or all of these signs are recorded in the radiograph of a tooth which clinical examination shows to be non-vital, we may safely conclude that the tooth is infected and that we are dealing with periapical disease. All teeth which show but a very small area near the apex with a history of recent infection and absence of absorption of the periapical cementum are favourable for root-canal treatment, good general resistance of the patient being presupposed, of course. Seldom does the infection at the apex of one tooth spread so far as to involve the apex of an adjacent tooth, usually remaining localised to the one tooth even in very severe cases. Generally the size of an abscessed area is an indication of the seriousness of the condition. There is an exception, however, in the case of the pre-molars and molars of the upper jaw, especially if these teeth protrude into the antrum. It must be remembered that when there is only a very thin film of bone over the roots of such

teeth there is no chance for extensive bone destruction and cases which show the smallest shadow are more liable to be the cause of antrum disease than larger areas separated by a good thickness of bone.

Variations in the intensity of the shadow of abscess cavities in radiographs are due to the anatomical location of the cavities. If the outer or inner cortical plate of bone has become perforated we get a deeper shadow than from a cavity say in the cancellous bone between the two thick unaffected cortical plates of the mandible.

Crane classifies periapical infections into three distinct types, each having its characteristic radiographic features. He describes them as:—

Class I.—Circumscribed radiolucent areas or Primary Granulomas.

Class II.—Diffuse radiolucent areas or Advanced Granulomas.

Class III.—Circumscribed radioparent areas or Dental Cysts.

Class I.—Periapical disease may vary from a slight thickening of the periodontal membrane at the apex to an extensive rarefying osteitis, but to fall into this class there must be a radiolucent area which is circumscribed and blends gradually into the normal bone. So long as the outline of disease is circumscribed the vital forces are still capable of considerable resistance and it is a sign that this resistance of the tissues to infection is taking place that the area remains circumscribed. When the infection persists long enough, or becomes virulent enough, to break through the wall of defence at one or more weak points we have Class II. periapical disease or advanced granuloma. This also shows in the radiograph as an irregularity of the translucent area which may vary from a simple break in limitation to an entire loss of form. As in Class I. the limitations of the abnormal area are poorly defined and it is impossible to determine a border line between normal and rarefied bone, so gradually does one blend into the other. This class is frequently coincident with roughness and absorption of the root apex. It indicates the absence or feebleness of the reparative effort of the tissues exhibited in Class I. cases. While it sometimes happens that Class II. cases respond to treatment, the destructive process has reached so advanced a stage that it is seldom that teeth in this condition are restored to normal health, except by root action. In fact infection in this class is rarely eliminated even by extraction unless curetting is resorted to.

(*To be concluded*).

Pass List.

University of Cambridge.

M.Ch.

Easter Term, 1925

W. D. Doherty.

Third Examination for Medical and Surgical Degrees.

Easter Term, 1925

Part I.

Surgery, Midwifery and Gynæcology.

I. C. P. Beachamp.	J. L. Groom.
N. F. C. Burgess.	L. E. Houghton.
A. C. Copley.	A. Simpson Smith.

Second Examination for Medical and Surgical Degrees.

Part II.

Human Anatomy and Physiology.

F. E. G. Hopkins.

Society of Apothecaries of London.

July, 1925.

Biology.

Grantley Smith.

Materia Medica and Pharmacy.

J. L. Hopkins.

Anatomy.

C. C. F. White.

Physiology.

T. Sherman. C. C. F. White.

University of London.

Second (M.B., B.S.) Examination for Medical Degrees

July, 1925.

C. Arkles.	R. L. Harward.
S. L. A. Clarke.	J. M. Hulett.
E. T. Clifton.	R. A. Leader.
J. E. Crooks.	W. H. Miller.
S. N. Evans.	O. Plowright.
C. R. E. Freezer.	N. Rosen.

M.S.

July, 1925.

T. G. D. Bonar.

B.Sc.

Physiology.

D. F. Kanaar. N. H. Skelton-Browne.

1s Voice—"GOT A FAG CARD, DOCTOR?"
2nd do. —"No!!"
1st do. —"GO ON, A'INT YER, DOCTOR?"
2nd do. —"No, I *HAVEN'T!!!*"
1st do. —"GARN, STOODENT!!"
(*loudly*)

Of Interest to Surgeons (of a sort).

BY "QUATE."

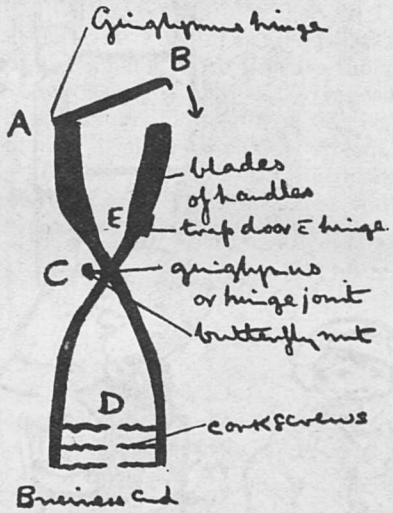
THE Editor of the GAZETTE not having asked me to write an article, it behoved me to consider how to get a column in varico—I mean lighter—vein accepted. One little idea of mine was to have an asterisk after each would-be joke or pun, as, apart from the Editorial columns, one does not expect to find the little dears in such a paper as the GAZETTE, the most un-effete and non-decomposing of all periodicals; a paper with such a good, if arterio-sclerotic circulation, that it penetrates not only all over the United Kingdom, but even, if my informant may be credibly—er—credited, has an entrance into the better houses in Lothwitheal and parts of Wigan.

I will give you an example of the Asterisk Idea. "A cat was seated on the wall, but the cat does not enter into the tale, for it was a Manx cat (*). The wall was not suitable for growing the rarer sub-tropical half-hardy leguiminous biannual alpines upon, but the cat'll pine (*) for you." What a Felix-itous scene! You see the idea. The gentile reader (and perhaps some of the other old vintage) can, at each asterisk, gently backwater, dissect out any risable matter—not to be confused with the puss (*) mentioned above—and give exit—if he be a borderline case—to one of those restrained but full-throated laughs, which do so much good to our residual air on a hot day.

The great drawback to the asterisk, and for this reason I have deleted it, is that the medical mind at once glances to the bottom of the page expecting one of those helpful little footnotes, so beloved of text-books, such as, "According to Von Sillifulski, the size and position in space is not so much due to the length, height and breadth, as to the ad interim volume disclosed by the cubic capacity measured de novo ad hocque from before backwards and from side to side, with the measure held laterally, and due north and south."

The other little matter troubling me was what to write about. Every one is said to have the makings of at least one book in him. What with the hot weather, and my bringing up my lunch done up in newspaper, I probably have the makings of an Encyclopædia in me.

In such a paper as this, one expects not only an article which grips, such as a tie clip or a Spencer Wells, but one which will give bias to the day's work, and add zest to the ceaseless round, the empty flask. Drage will furnish all we ask. And so I have much pleasure in introducing anyone who is still reading this masterly little diatribe—and many a tribe has died for less—to my little invention, the Quate Bone Forceps, of which a simple little black and white sketch is appended—a little sketch which does not even suggest the



finer high lights and mezzotints of which the instrument is capable. I make the following modest claims for this inexpensive little gadget:—

1. It will not grip bone, as when the corkscrews D are in situ, the handles are too far apart for the span of the human hand to encompass round about.

2. By gripping the earth with the prongs D, closing the handles, and lowering B, a very pleasant little seat is formed, suitable for use in the Park, or outside the Coroner's Office.

3. The corkscrews D are most suitable for farewell dinners, impacted wisdoms, or for getting plantains out of the lawns.

(N.B.—If there are no plantains in your lawn, packets of seed may be bought most

reasonably at most wholesale undertakers, the seed being much in demand for scattering over the soil superficial to the late lamented deceased.)

4. The Handle is made of wood. In a hard winter—speaking climatically and operatively—it makes excellent firewood. Any handle not giving off $2\frac{1}{2}$ therms worth of heat will be replaced free of charge—owner to pay carriage one way.

5. The little innovation at E is quite new, not being found on any other instrument, to the best of the writer's knowledge. It is patented in Czecho Slovania, and will shortly be so in the Isle of Thanet. On opening the trap door on the outer side—or as we now prefer to call it, the lateral or external or windward side—of the postero-mesial handle, there is disclosed a small recess or cul-de-sac. This is designed for the parking of chewing gum during operations, and has been successfully used for gold fillings found on patients in the 3rd (oft misnamed relaxed) stage of anæsthesia.

6. The instrument, whilst having only 3 moving parts, has also 3 ginglymus or hinge joints. This combination, technically known as Fifty-Fifty, renders it very liable to internal derangement, especially if used for heavy work, such as cracking cocoanuts.

7. The hinge parts at C may, by means of a butterfly nut, be converted into an amphiarthroidial joint, so prolonging the operation if done by a myopic surgeon with over correcting glasses, by at least 90 minutes.

8. The instrument is unlikely to be stolen, as, if inadvertently left in a tram car, it closely simulates a D-flat oboe, an instrument not popular in the strata in which tramcars percolate.

Reviews.

General.

Parasitology for Medical Students. By MILES KENENRY. Published by The Oxford Medical Publications. *Price* 10*s.* 6*d.* net.

THIS branch of medicine is frequently left by the student to those last few days of "cramming" before an examination. This book provides a very interesting account of the common parasitic organisms including their life history, clinical manifestations and treatment, and should form a useful addition to the medical student's library. There are numerous illustrations which, combined with the text, provide a clear concise picture of the various organisms. The author has avoided unnecessary "depth" in his subject so that the subject matter is within the scope of the ordinary medical curriculum.

Artificial Sunlight and its Therapeutic Uses. By F. H. HUMPHRIS, M.D., Brussels, F.R.C.S., Edinburgh. Pp. xiv.+170. Published by Messrs. Humphrey Milford, Oxford University Press, London. *Price*, 8*s.* 6*d.* *net.*

ARTIFICIAL sunlight, whatever may be its real value in the fight against disease, is undoubtedly one of the more recent medical fads. It's value has been overestimated by a very large number of medical men and by a far larger number of the non-medical public. The newspapers have given it wide publicity and ultra-violet ray clinics have sprung up in large numbers. Cures for a variety of diseases and nutritional disorders have been claimed, and a number of fatalities have resulted. There is reason to hope that, for those who are denied the benefits of real sunlight, artificial sunlight will prove of great and lasting benefit. For this reason it is necessary for each medical man to have a sound idea of the nature and action of ultra-violet rays. The small book, under review, gives in a few pages the technique and therapeutics of artificial sunlight, and the author quotes examples of his own cases to illustrate its beneficial effect in a variety of conditions. The author has had a large experience of this form of treatment and his book will be found of value in obtaining the main conclusions that have been reached, both experimentally and clinically, by authoritative research workers.

Gynæcology.

Synopsis of Gynæcology. By ARTHUR GRAY. Published by Messrs. Arnold & Co. *Price* 10*s.* 6*d.* *net.*

THIS book is intended solely for revision purposes before an examination and in no way replaces the ordinary text-books. The subject is dealt with on a system of headings

and sub-headings so that a rapid survey of the subject is possible. There is an interesting and useful chapter on the forensic aspects of gynæcology. X-rays and radium are also dealt with separately. To those students who desire a sound comprehensive revision book, this volume should be of great service.

Neurology.

Neurological Fragments. By HUGHLINGS JACKSON. Published by The Oxford Medical Publications. *Price* 12*s*. 6*d*. *net*.

THE work of Hughlings Jackson is so well known and widely appreciated that no description of his "Neurological Fragments" is necessary.

The man himself is one of the most interesting personalities in Neurology, who numbers among her servants not the least picturesque of the figures in Medicine.

Like the boy in Kipling's "Dymchurch Flit," Hughlings Jackson was born with the gift of seeing further than other men into a paving stone.

He seems to have been aware of this power in himself when he humorously acknowledges it in one of his writings: "My theories have been likened to the Wisdom of God that passeth all understanding."

This excellent reprint of his "Fragment," together with the delightful memoirs of his life by distinguished men, should prove very stimulating to developing neurologists.

Hughlings Jackson's methods were all his own, and he accomplished a great deal; there is little left for improvement in the diagnosis of Nervous Disease nowadays.

But the problem of treatment is as baffling as ever; still we must believe, with Masefield, that untimately "The meaning shows in the defeated thing."

On the Rhine there is a striking memorial to the men of Germany who fell in the Great War. Near the place where the Lorelei used to hold her legendary seances the river enters a great gorge; stabbed into the sheer face of a towering precipice is a great claymore and underneath are engraved the words—

"Who will take the sword higher."

This, it seems to me, as applied to neurology, is the message of Hughlings Jackson.

Pathology.

Text Book of Surgical Pathology. By JENNINGS, MARSHALL and PINEY. Published by Messrs. Arnold & Co., Ltd., London. *Price* 21*s*. *net*.

THE authors have set out to provide a text-book of surgical pathology which is to include sections on Embryology, Anatomy and Clinical Observations. Their contention is that such a book is needed for examination purposes, more particularly for the "higher examinations." It is a matter of opinion whether the somewhat meagre portions of embryology and occasionally anatomy at the beginning of each chapter would be of any value to a candidate for any of the "higher examinations"; at the best they would serve to remind him of the existence of anatomy and embryology and consequently of the necessity for reading them up.

None the less, this, as a text-book of surgical pathology, is emphatically a good one. The style is concise and clear and though the writers' own theories on certain subjects are stressed, quite a fair hearing is given to less authoratative opinions.

In the section on Shock it is unfortunate that the authors do not clearly distinguish between Primary and Secondary Shock; otherwise the Section is a very able summary of the prevailing views on the causation of shock.

Some slips are made in nomenclature, *e.g.*, on page 293 S. Japonicum is embellished with a fictitious "lateral spine." In the section on T.B. Peritonitis it is stated that "Bacilli are demonstrable in the stools of every case in the Entero-Peritoneal form."

Of course, every case in which Tubercle Bacilli are found in the stools could easily be put into the Entero-Peritoneal group, but the quoted statement gives an unfairly optimistic view of the number of cases of T.B. Peritonitis in which the perspiring Bacteriologist may be confidently expected to find Tubercle Bacilli in the stools.

The illustrations, on the whole, are well chosen and ably reproduced (as Dr. Johnston *might* have said); the wide margin round the letterpress is a pleasing feature, room for marginal notes is not the least important of the components of any medical work.

Apart from the rather prohibitive price (a feature common to nearly all medical books nowadays) the book is one that can be recommended to anyone approaching the "Final stage of his medical pupilage."

Sport.

Cricket.

Inter-Hospital Cup Final.

Guy's v. St. Bart.'s.

PLAYED on the ground of London Hospital at Hale End on July 20th and 21st, the result being a tie.

For the second year in succession Guy's reached the Final, and once again there was a most exciting finish—last year we won by 2 runs; this year we tied.

The side was still without A. G. Ensor and J. Durr, their places being filled by J. White and T. O. Garland, a new man from Cambridge.

Williams won the toss, and after careful inspection of the wicket decided to bat. There had been rain and the wicket was softer than it had been for some time.

Pye-Smith and Garland began well, putting on 27 before the former was deceived by a googly. Catchpole helped to bring the score to 57, at which point Garland played on. His was a very useful innings, and he was the only man in either innings who showed any confidence when facing Bettington. Catchpole was out at 70 and Curtis at 75, both bowled by Maley's off-break, and Williams when appearing set also fell a victim to Maley, the score being 82—5—12. Without addition to the score Fellowes-Smith was out, hitting over a dropping ball from Bettington. Van Schalkwijk stayed some time until he fell to a googly, and though Preen and Clarke hit out with some success, the innings closed for 117, a poor total after a fair start.

Bart.'s began their innings badly, Cook being caught at square-leg in Van Schalkwijk's second over. At 22 a good catch in the slips disposed of Mackie. At lunch the score was 30 for 2. The score afterwards rose steadily to 65, at which point Woods-Brown was caught at cover, having played a very good innings. Sinclair only made one, being caught at the wicket off a wild stroke, and at 73 Bettington was well caught by Clarke. The remaining batsmen did not stay long, although the last pair added 15. Van Schalkwijk made a very brilliant one-handed catch in the slips to dismiss Maley.

Going in with a lead of 10, for twenty-five minutes' batting before tea, a very good start was made. Runs came freely, the first pair scoring 29 in twelve minutes, the total at tea-time being 61 for 1. However, as in the first innings, the good start was not continued. Maley soon dismissed Garland and Catchpole, and after them only Williams and Fellowes-Smith could do anything with Bettington. The innings closed for 119, leaving Bart.'s 130 to get. Bettington and Maley bowled unchanged through the innings, the former having everyone in difficulties with his leg-breaks and occasional googlies.

Before Bart.'s began their innings there was a slight drizzle, but with an hour to play they faced the bowling of Van Schalkwijk and White. Except for one over from Clarke just before play closed, there were no changes, and considering their previous bowling in the afternoon they both bowled amazingly well. The first wicket fell after thirty-five minutes at 24, Cook being taken at the wicket by Pye-Smith. At 27 Woods-Brown, who had had several nasty blows from rising balls, was very well taken at backward point. At 30 Bettington was bowled by a beautiful ball from White. Mackie and Sinclair played out time, but the latter was very nearly bowled on two or three occasions. The score at the close of play was 43 for 3, or 87 more to win with 7 wickets to fall.

During the night there was heavy rain, and at 11.30 the next day play was impossible, and it was decided to have an early lunch and make a 1.30 start. Though the sun was out, the wicket for the first hour's play was quite slow and easy, though later the bowlers derived some assistance from it. The bowlers for quite an hour were badly handicapped as the footholes were just soft mud, and although much sawdust was used it was impossible to bowl fast without slipping. It was not until the score was in the 90's for 4 wickets that either Van Schalwijk or White could bowl at their normal pace.

Sinclair and Mackie, the not-outs, went on with the innings, and by slow and careful cricket took the score to 67, when Sinclair was caught at the wicket off a bumping ball which

he did not mean to play. Gaisford, all the time he was in, appeared certain to give wicket or slips a catch, but he stayed to take the score to 96 before being caught in the gulley. Maley batted confidently and the score rose steadily; and when the score stood at 115 with only five men out, the end seemed to be near. However, at this point North made a good catch at mid-off, falling forward to hold the ball. With 15 to win and four wickets to fall the play became sensational. With 1 run added, Mackie was caught brilliantly by Garland in the slips, high above his head with one hand. Mackie had played an invaluable innings, having batted for an hour and three-quarters. Off the next ball White made a good catch, having to run from mid-on towards mid-wicket. The next ball was edged into the slips, where Garland made a brilliant catch, the best of the match, diving forward full-length, and taking the ball just above the ground—"a hat trick." With only one man to came in and 14 runs to get, the odds were on a victory for Guy's, and this nearly was accomplished two balls later, for the last ball of Van Schalkwijk's over only just missed Fells' leg stump. However, Guinness and Fells slowly added runs, though three times catches nearly went to hand. With 6 runs needed Fells hit a 4 to square leg; 1 run to tie; 2 to win. Fells scooped the next ball into the air towards the mid-wicket and ran; mid-wicket was just too deep; square-leg ran for it, but could not reach it; and mid-on who, had he been the only fielder near, might have caught it, quite rightly left it to square-leg; 1 run to win. Van Schalkwijk brought mid-wicket to the slips. His next ball was well up, outside the off-stump; Guinness flashed at it and just touched it; the ball went high to second slip, but Garland once more made a brilliant one-handed catch, and the game was over—a tie.

This account cannot close without reference to the Guy's fielding and bowling. Van Schalkwijk once again bowling magnificiently, taking 8 wickets for 48, including a hat trick. White bowled very well, frequently beating the bat, but having no luck. As will be seen, 7 catches were made in the first and 9 in the second innings, and only one very hard catch was missed. It is also noteworthy that the wicket-keeper let no byes in the second innings and only 2 in the first.

Guy's.

1st Innings.

E. J. Pye-Smith, b Bettington	9
T. O. Garland, b Maley	32
L. Catchpole, b Maley	19
L. S. Williams, b Maley	12
A. H. Curtis, b Maley	2
G. Fellowes-Smith, b Bettington	6
J. G. Van Schalkwijk, b Bettington	7
V. R. Preen, st Guinness b Bettington	13
G. T. Clarke, not out	14
W. H. G. North, c Woods-Brown b Bettington	0
J. White, c and b Bettington	0
Extras	3
Total	117

Guy's.

2nd Innings.

E. J. Pye-Smith, b Bettington	14
T. O. Garland, b Maley	29
L. Catchpole, c Mackie b Maley	14
L. S. Williams, run out	13
A. H. Curtis, c Hodgkinson b Bettington	1
G. Fellowes-Smith, l.b.w. b Bettington	20
J. G. Van Schalkwijk, c Fells b Bettington	4
V. R. Preen, b Bettington	1
G. T. Clarke, b Bettington	2
W. H. G. North, not out	5
J. White, b Bettington	1
Extras	15
Total	119

Bowling Analysis.

1st Innings.

	o.	m.	r.	w.
L. M. Maley	14	1	52	4
R. H. Bettington	16·1	2	44	6
N. E. Cook	3	0	18	0

Bowling Analysis.

2nd Innings.

	o.	m.	r.	w.
L. M. Maley	13	0	61	2
R. H. Bettington	12·2	3	43	7

St. Bart.'s.

1st Innings.

G. C. Woods-Brown, c Preen b White	32
N. E. Cook, c Catchpole b Van Schalkwijk	0
K. W. Mackie, c Van Schalkwijk b Garland	6
R. H. Bettington, c Clarke b Van Schalkwijk	28
M. R. Sinclair, c Pye-Smith b Van Schalkwijk	1
W. F. Gaisford, c and b White	10
L. M. Maley, c Van Schalkwijk b White	1
H. W. Guinness, b North	5
H. L. Hodgkinson, b North	4
N. A. King, b Van Schalkwijk	5
R. Fells, not out	10
Extras	5
Total	107

St. Bart.'s.

2nd Innings.

G. C. Woods-Brown, c Fellowes-Smith b Van Schalkwijk	14
N. E. Cook, c Pye-Smith b Van Schalkwijk	13
K. W. Mackie, c Garland b Van Schalkwijk	28
R. H. Bettington, b White	3
M. R. Sinclair, c Pye-Smith b Van Schalkwijk	22
W. F. Gaisford, c Fellowes-Smith b Clarke	17
L. M. Maley, c North b Van Schalkwijk	17
H. W. Guinness, c Garland b Van Schalkwijk	5
H. L. Hodgkinson, c White b Van Schalkwijk	0
N. A. King, c Garland b Van Schalkwijk	0
R. Fells, not out	8
Extras	2
Total	129

Bowling Analysis.

1st innings.

	o.	m.	r.	w.
J. G. Van Schalkwijk	16	2	52	4
T. O. Garland	5	1	7	1
J. White	15	2	37	3
W. H. G. North	5	2	6	2

Bowling Analysis.

2nd Innings.

	o.	m.	r.	w.
J. G. Van Schalkwijk	24·4	6	48	8
J. White	21	3	51	1
G. T. Clarke	5	1	13	1
W. H. G. North	6	1	10	0
T. O. Garland	3	1	5	0

1st XI. v. Catford Wanderers.

Played at Catford, on July 8th, resulting in a win for Guy's by 128 runs.

Scores :—

Guy's.

L. S. Williams, c Little b Miller	6
A. H. Curtis, b Little	25
L. Catchpole, b Edge	19
J. G. Van Schalkwijk, b Everett	18
G. Fellowes-Smith, b Everett	76
V. R. Preen, not out	81
L. W. Houghton, b Edge	1
Extras	32
Total (for 6 wickets declared)	258

S. R. Trick, D. M. Calder, C. E. P. Davies and N. S. Plummer did not bat.

Catford Wanderers—Total, 130.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	13·5	3	43	3
L. W. Houghton	13	2	39	1
G. Fellowes-Smith	5	1	12	4
D. M. Calder	4	3	5	1
V. R. Preen	2	0	14	0
L. S. Williams	2	0	9	1

1st XI. v. Honor Oak.

At Colyton Road, July 11th, the result being a win for Guy's by 6 wickets.

For the second time this season we beat Honor Oak, a feat which no other side has accomplished for at least 30 years we believe.

Honor Oak began badly, 4 wickets falling for 33 runs, all bowled by Van Schalkwijk. Unfortunately he then strained his leg and could bowl no more, but Clarke, North and Houghton succeeded in dismissing the remaining batsmen quickly.

Guy's did not begin well, but thanks to useful scores by Williams, Curtis and Fellowes-Smith, the Honor Oak total was passed for the loss of 4 wickets. The other batsmen, however, did not stay long.

The match was played in aid of the Bi-Centenary Appeal, and was watched by a large number of spectators.

Scores :—

Honor Oak.

A. R. Thorne, b Van Schalkwijk	13
F. Read, b Van Schalkwijk	0
W. T. Cook, b Van Schalkwijk	8
G. Sudbury, b Van Schalkwijk	11
J. H. Lockton, c Trick b North	10
L. Todd, b Clarke	18
F. Mulley, b Clarke	0
E. Mulley, c Trick b Houghton	18
A. Swain, c Preen b North	2
W. T. Edwards, c Pye-Smith b Clarke	15
C. G. Gibson, not out	0
Extras	5
Total	100

Guy's.

E. J. Pye-Smith, b Lockton	4
L. S. Williams, l.b.w. b Gibson	20
W. A. Corry, c Todd b Edwards	15
A. H. Curtis, c E. Mulley b Lockton	32
G. Fellowes-Smith, b Lockton	25
J. G. Van Schalkwijk, c Sudbury b Swain	14
V. R. Preen, b Lockton	0
G. T. Clarke, b Lockton	2
S. R. Trick, b Swain	0
W. H. G. North, c Read b Swain	27
L. W. Houghton, not out	6
Extras	1
Total	146

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	5	0	21	4
W. H. G. North	13	3	39	2
G. T. Clarke	9	1	25	3
L. W. Houghton	0·4	0	6	1

1st XI. v. Indian Gymkhana.

Played at Honor Oak Park, July 15th, resulting in a win for Guy's by 3 wickets.

Scores—

Indian Gymkhana—Total, 131.

Guy's.

E. J. Pye-Smith, b Khan	1
S. R. Trick, b Khan	35
L. W. Houghton, b Baksh	3
L. Catchpole, b Baksh	43
L. S. Williams, b Khan	0
G. Fellowes-Smith, b Baksh	8
A. H. Curtis, c sub. b Baksh	14
W. H. G. North, b Khan	32
V. R. Preen, b Baksh	6
G. T. Clarke, not out	0
Extras	19
Total (for 9 wickets)	161

E Britstone did not bat.

Bowling Analysis.

	o.	m.	r.	w.
G. T. Clarke	9	1	41	3
W. H. G. North	15	2	50	4
G. Fellowes-Smith	7·1	1	31	1
L. W. Houghton	1	0	4	0

1st XI. v. Old Charlton.

Played at Honor Oak Park, July 18th, resulting in a win for Guy's by 6 wickets.

Scores—

Old Charlton—Total, 70.

Guy's.

E. J. Pye-Smith, b Boxandall	9
T. O. Garland, b Martin	50
W. A. Corrie, b Boxandall	1
G. Fellowes-Smith, b Martin	2
A. H. Curtis, l.b.w. b Martin	5
J. G. Van Schalkwijk, c Boxandall b Shrimpton	19
L. S. Williams, c Bishop b Shrimpton	2
L. Catchpole, b Shrimpton	1
V. R. Preen, st Fisher b Shrimpton	13
W. H. G. North, not out	4
N. S. Plummer, b Shrimpton	0
Extras	4
Total	110

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	11·4	1	38	4
T. O. Garland	8	1	27	5
W. H. G. North	3	1	2	1

1st XI. v. Streatham.

Played at Honor Oak Park., July 25th, and resulted in a win for Guy's by 2 wickets.

Scores—

Streatham—Total, 101.

Guy's.

E. J. Pye-Smith, st Lloyd Evans b Miller	29
T. O. Garland, b Godfrey	5
L. Catchpole, l.b.w. b Godfrey	10
L. S. Williams, l.b.w. b Miller	34
G. Fellowes-Smith, c and b Miller	0
A. H. Curtis, b Miller	2
A. G. Ensor, b Turney	12
W. H. G. North, b Turney	4
V. R. Preen, b Godfrey	13
J. D. S. Thomas, c Duke b Godfrey	12
E. Fulford, not out	2
Extras	7
Total	130

Bowling Analysis.

	o.	m.	r.	w.
T. O. Garland	6	1	26	2
W. H. G. North	8	1	28	4
A. H. Curtis	4	0	17	1
G. Fellowes-Smith	3	0	17	3
L. S. Williams	2	0	9	0

2nd XI. Results.

v. City of London School.

City of London School, 121 (W. H. Myburgh, 6 for 62).

Guy's, 118 (D. M. Calder, 42; E. W. Hutchinson, 22).

Match drawn.

v. Crystal Palace.

Guy's, 200 for 9 (declared) (E. Britstone, 70; D. M. Calder, 53; E. C. Till, 36).

Crystal Palace, 27 (E. Britstone, 4 for 6; D. M. Calder, 5 for 16).

Match won by 173 runs.

Tennis.

The "Nursing Times" Lawn Tennis Cup.

THE Guy's team have not been successful this year in reaching the final round of the competition, having been beaten in the semi-finals by University College Hospital.

Five strenuous matches have been played, the first four being won with a comfortable margin. In the first round Guy's were drawn against S. Stephen's Hospital, Fulham Road. The Guy's team were stronger all round, but their opponents put up a very plucky fight.

In the 2nd round St. George's Hospital was drawn. This match was played at the Cottage, Honor Oak Park, and ended in another substantial victory for the home four.

King's College Hospital were the opponents in the 3rd round. The match was played at King's College, and after an exciting struggle

between the two "A" couples, Guy's won comfortably.

In the 4th round Guy's met the North-Eastern Fever Hospital. Great anxiety was felt when the Guy's "A" couple lost the first two sets; they won the 3rd set, however, making the score in games equal. The Guy's "B" couple had a much easier task, their opponent's play being far below the standard of the "A" couple, and won their match with the loss of only 3 games.

The semi-final against University College Hospital was played on neutral ground at the Park Hospital, Hither Green, on Wednesday, July 22nd. In spite of a great fight, Nurse White playing exceptionally well at the net, and Sister Johnson hitting hard from the back line, the "A" couple were defeated in all 3 sets, the scores being 6—2, 6—4, 6—3. This left a hard task for the "B" couple. When the score stood at 7—6, University College Hospital, leading in the first set, play was interrupted by a heavy downpour and the match had to be finished the following evening. The "B" couple lost the first set, at 11—9, and won the next 6—3. The 3rd set was not played, as University College Hospital were still 8 games ahead, and though their lead might have been reduced, Guy's could not have won.

Team players:—Sisters Johnson and Cornwall, Staff Nurse M. White, Nurses Johnson and Tyrwhitt.

In the final, St. Thomas's Hospital beat University College Hospital easily by 5 sets to nil.

Golf.

The Staff Golf Match.

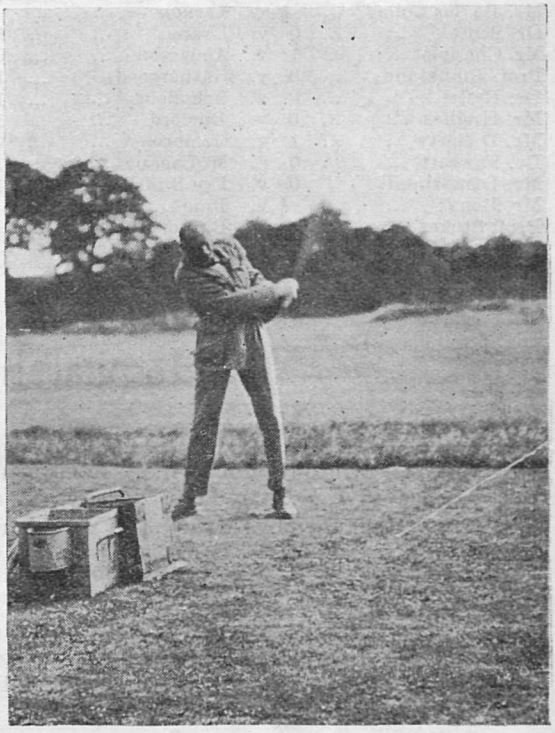
THE Spring Biannual Golf Match between the Staff and the Students was played over the Northwood Course on Wednesday, July 1st.

Several members of the Staff were able to get down to the Course early enough to play a round before lunch, but the majority of the singles were played during the afternoon.

There were some very close matches, but by tea time the students were several points to the good.

Dr. Hunt and Mr. Bromley were prevented from arriving until after tea so were only able to play their foursomes. We were very pleased to have Dr. Fawcett with us, who has not until now played in one of these matches for several years.

The final result was a win for the students by 10 matches to 9. This is the first time they have won one of these matches, since they were resumed after the war.



MR. DAVIES COLLEY.

THE DEAN.

The results were:—

SINGLES.

Mr. Malleson	1	v.	Bown		0
Mr. Davies Colley	½	v.	Vernon		½
Dr. Scott	0	v.	Evans		1
Mr. Chapple	1	v.	Anderson		0
Prof. Johnstone	0	v.	Gathergood		1
Dr. Ryffel	0	v.	Schofield		1
Mr. Hughes	0	v.	Burford		1
Mr. Doherty	1	v.	Cameron		0
Dr. Fawcett	0	v.	McLagan		1
Mr. Lambrinudi	0	v.	Pye Smith		1
Mr. Bonar	½	v.	Jones		½
Prof. Stokes	0	v.	Buxton		1
	4				8

FOURSOMES.

Mr. Bromley, Dr. Hunt	2	v.	Glover, Cann	0
Mr. Malleson, Mr. Davies Colley	0	v.	Bown, Verno	1
Mr. Chapple, Mr. Bonar	1	v.	Anderson, Jones	0
Mr. Hughes, Mr. Doherty	1	v.	Barford, Cameron	0
Dr. Ryffel, Mr. Lambrinudi	0	v.	Pye-Smith, Schofield	1
Dr. Scott, Prof. Stokes	1	v.	Buxton, Evans	0
	5			2
	4			8
	9			10

Hospital Information, etc.

Notices.

THE Lecture on "Gingivitis," recently reported in the GAZETTE, was delivered on June the 5th, by Mr. G. B. Pritchard, M.R.C.S., L.D.S.

The sum of £3 1s. 6d. collected by the Students of the Dental School has been donated to the Bicentenary Appeal in memory of the late J. N. du Toit Hamman.

Change of Address.

S. F. Durrans, M.R.C.S., L.R.C.P., Caramore, Chaucer Road, Bedford.

E. M. Power, L.D.S., R.C.S., 10, Robinson Rd., Tooting, S.W.17.

R. J. Hooker, 60, Grand Parade, Brighton.

Arthur Miller, M.D., B.S., 8, Dalmeny Avenue, N.7, other address remains 1, Telegraph St., E.C.2.

Publications Received.

The Medical Journal of South Africa, The University of Durham College of Medicine Gazette, The British Journal of Dermatology and Syphilis, The Nursing Times, The Medical Review, The Prescriber, The London Hospital Gazette, The Middlesex Hospital Journal, The St. Mary's Hospital Gazette, The Journal of the Architectural Association, The Queen's Medical Magazine.

Papers by Guy's Men.

Dr. F. E. Shipway and Others. Discussion on the Prevention and Treatment of Post-Operative Pulmonary Affections.—Proc. Roy. Soc. Med., Joint Discussion No. 3., Sections of Surg., Anæs., Med., Obst., and Gynæc., and Path., 1925, xviii., p. 44.

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Marriage.

WRIGHT—LOWY.—On the 16th July, at Folkestone, James Alfred Snarey Wright, A.F.C., of 34, Neeld Crescent, Wembley Hill, and 37, Cavendish Square, W.1, younger son of the late James Walter Wright and of Mrs. Wright, to Kathleen Henriette Gertrude Lowy, second daughter of Mr. and Mrs. Robert Leopold Lowy, of 101, Barrowgate Road, Chiswick, W.4.

Births.

BRIGGS.—On June 10th, 1925, at Hawes Hill Farm, Holyport, Berks., to Marjorie Kathleen (née Dams), wife of Percy J. Briggs, M.A., M.R.C.S., L.R.C.P.—a daughter.

DOUTHWAITE.—On July 21st, 1925, at Carlingford, Worthing, to Gladys, wife of Dr. A. H. Douthwaite—a daughter.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

SOME years ago there lived a man, who was a glutton for dates. We trust that he lives still. He was very poorly educated in the most approved conception of that word—that is to say, he had only been taught things, and the things, that he had learned to excess, were dates. At first one had only to tell this peculiar man a date, on which some event had taken place, and he immediately had both the event and the date ineradicably fixed in his memory. Later, there became no need even to tell him the dates. He knew them all. We believe that this human date-repository was an inmate of a workhouse but that may not have been the case. Wherever he did actually reside, he was interviewed by a special correspondent of our daily newspaper and displayed a most catholic knowledge of chronology. He could give unhesitatingly the dates, on which the "Rump" was dissolved or on which the first steam engine was used or even on which Sheffield United last won the "Cup." He knew the date, on which anything had ever happened anywhere and seemed little the worse for his mental burden.

To us this seems a very strange accomplishment. With the exception of our birthday, an anniversary not as widely known as we could wish, dates have ever been distasteful to our mental palate. The years of the ascensions to the throne of Kings William one and two we have remembered after much hard work, but from that time on exact dates have been replaced for us by rather inaccurate periods. With the outbreak of the War, a third date was added to our list, a date associated with such gloomy thoughts, that we had never hoped to be able to forget it. August 4th, 1914, was the beginning of Europe's most gruesome nightmare, from which she has hardly yet awoken, and few, who lived through those days, will forget that one date.

Now, to Guy's, the date becomes more than ever memorable, for on August 4th of this year, Sir Alfred Fripp retired from the Staff, of which he had been a member for some thirty years. The "last round" was concluded with a tea-party in "Charity," where Sir Alfred's present firm, one or two members of the staff and several of his old house-surgeons, gathered to wish him "good-bye." Good-bye from the Staff, that is, for Sir Alfred has been raised to a Governorship of the Hospital so that his love and enthusiasm for all things, connected with Guy's, will still find a means of practical expression. The honour is well-

deserved. There are few Guy's men who have had the welfare of the Hospital more at heart than the late Senior Surgeon, and there are few, who have done more to promote its interests. At one time an active member of the fifteen, he has never lost his keen interest in hospital rugger, and as for swimming, only those, who have struggled in the official posts of the Swimming Club, know fully what encouragement and active support he has given them. The annual galas at the Bath Club have been held there, entirely owing to his influence and interest. On the more serious side of Hospital life he has always shown the same keenness and esprit de corps and while we congratulate Sir Alfred on his well-earned retirement from the many years of hard work as a Guy's surgeon, we congratulate ourselves on the fact that his acceptance of a Governorship will still keep for us his wise, clear-sighted and unflagging counsel in as practical a form as ever.

THE interchange of wards, announced in our last number, has taken place with a minimum of disturbance to the everyday routine of the wards. "Christopher" is now definitely established and "Charity" has gone.

WE would take this opportunity of thanking the many correspondents, who wrote, pointing out our error in the last "Passim." We regret that the number of their letters prevents us from answering each one personally, but would ask them to accept this grateful acknowledgment of the kind interest that they take in our inaccuracies.

The Value of Radiography to the Dental Surgeon.

A Paper read before the Dental Society by H. E. SPENCER-PAYNE.

(*Concluded.*)

When a primary granuloma contains epithelial rests, these elements will often form strands about developing necrotic areas and thus the granuloma is gradually converted into a dental cyst (Class III.). Cysts are frequently found, as a late result, on the roots of teeth devitalised by trauma and these are often sterile, suggest the possibility that in some instances these growths are not of infectious origin. Whether infected or not, cases of complete cyst formation as included in Class III. are probably never eradicated by treatment through the root canal. The cyst wall must be entirely destroyed or the cyst will re-form. The radiographic appearance of a cyst is very characteristic. There is an intensely dark circumscribed area, round or oval in shape, surrounding a root apex (unless the root has at some time been extracted subsequent to the commencement of growth of the cyst. This dark area is outlined by a distinct light (radiopaque) line which represents a layer of cortical bone definitely and sharply separating the radioparent from the normal bone.

A similar radiographic appearance is seen in the case of a dentigerous cyst, but here the cyst will be found to enclose an unerupted permanent tooth. The bone absorption in the case of cysts is the result of pressure which causes expansion and absorption of the alveolus in a regular manner, as the cyst enlarges by the proliferation of the lining epithelium and the liquefaction of its central contents.

If a cyst becomes infected, as they sometimes do, we get what is known as a suppurating cyst, and the above radiographic appearance alters somewhat. In place of the sharp outline we have an irregular, ill-defined one resembling that of an advanced granuloma (Class II.).

In spite of the simple classification of the types of periapical disease given above there will obviously be found transitional forms when Class I is developing into Class II or III, or Class II into Class III.

Periapical disease is often associated with exostosis or hyperplasia of the cementum. This suggests an infection of low grade, by which the cementoblasts are stimulated to a point of excessive activity. Endleman and Wagner state that, when periapical disease is found about an exostosed root, the increased cemental growth occurred before the infection became virulent enough to cause destructive changes in the periodontal membrane from which cementoblasts are derived. This is indicated in those cases where the ends of such

roots show an apparent absorption following the hyperplasia.

Acute Apical Abscesses.

An acute apical abscess may form and point so rapidly that there is little or no bone destruction and in this case a radiograph will not assist the diagnosis of the condition. This condition may pass on to a chronic stage with a permanent sinus through which the discharge is so free that there may never be any bone destruction. Such chronic conditions are very difficult to diagnose.

Periodontal Disease (Pyorrhœa Alveolaris).

Periodontal disease always starts as a gingivitis due to irritation of the gum about the necks of the teeth. There are various causes for this irritation, such as deposits of calculus, overhanging edges of fillings, ill-fillings, crowns, bridges and dentures, faulty contact points between teeth due to poor restorative operations or to extractions of intermediate teeth, caries at or below the gum level, or malocclusion involving misapplied stress in mastication. Any of these causes will produce local injury to the gum tissue and permit infection by the micro-organisms always present in the mouth.

At first the lesion is confined to the gum tissue and cannot be detected in the radiograph. Later the periodontal membrane is attacked, the infection gradually progressing from the gum margin toward the apex of the tooth and being observable in the radiograph as a thickening of the normal periodontal membrane. Soon the alveolus becomes affected and absorption begins to take place, being first detected in the radiograph by absence of the apex of the bony septum between the incisor teeth, and a gradual roughening and absorption of the alveolus between the teeth in the molar and premolar regions. This absorption may take place by means of a rarefying osteitis or a condensing osteitis. In the former case the radiograph shows a radiolucent area (due to absorption of bone) which gradually fades off into the normal bone. In the latter there is seen a radiolucent area, but between this and the normal bone is a radiopacity due to an attempt by nature to wall off the infection by the condensing of the alveolar bone by deposition of calcium salts. Obviously the prognosis for successful treatment is much more favourable in such a case.

Radiographs are of the greatest value in all stages of the disease, and without them it is difficult to diagnose the extent of the disease. As Nodine says, instrumental examination is about as exact and certain as the complete filling of root-canals without a radiograph. How certain that is may be judged from the fact that in less than 5 per cent. of the roots into which root-canal fillings are placed do these fillings reach he apex.

The radiograph will show the presence of irritants such as salivary or seruminal calculus, faulty fillings and crowns, and more important still will show the amount of bone destruction, the depth of the pocket, and the condition of the bone. It will also show the length of root and amount of leverage it may withstand. The amount of bone destroyed varies from mere destruction of the apex of the bony system to the destruction of the entire bony support of the tooth. Radiographic evidence is sometimes unreliable in diagnosing the severity of cases in that it only shows pockets or calculus clearly when on the mesial and distal surfaces of the teeth and while the former may be extremely deep, there may be sufficient bone lingually and buccally to support the tooth, so that it appears very firm. Conversely there may be pockets lingually and buccally when the radiograph discloses none mesially and distally. Many teeth which clinically appear hopelessly involved will present in the radiograph a healthy alveolus, with a well defined lamina dura about the sockets, which are enlarged, perhaps, in consequence of undue stress. Such teeth can frequently be saved. On the other hand many teeth are treated over long periods when radiographic examination would show there was insufficient alveolar bone about the teeth to justify their retention, with the result that eventually they have to be extracted.

The most common mistake made by those who treat periodontal disease without using radiography is that of treating chronic apical abscesses for pyorrhœa. The number of cases in which chronic abscesses discharge their pathological contents between the approximal surfaces of teeth is very great, and this simulates pyorrhœa so closely that it is a continual puzzle to those who treat the disease, why such teeth fail to respond to treatment. Even the presence of apical abscesses which do not discharge may confuse both the diagnosis and treatment of pyorrhœa owing to such teeth

having so lowered the systemic and local resistance that efforts to restore normal tooth function and overcome the general infection, supposedly due to pyorrhœa, are defeated by these apical abscesses.

Where the infection is somewhat acute there will often be found roughening and absorption of the cementum, so that the apices of the teeth may even become as sharp as pins. But where the infection is more chronic and the tissue resistance greater the cementoblasts are irritated into laying down further cementum and an exostosis of the root occurs. Most commonly these conditions of exostosis and absorption will be found to alternate possibly with the periods of increased or decreased general resistance.

When we consider the great number of conditions which may produce the irritation which leads to pyorrhœa, it will be realised that a radiographic examination is of such value as to be almost indispensible for a proper diagnosis. The X-rays have often revealed such causes of irritation as pieces of guttapercha, amalgam and cement pushed up between the teeth, pieces of toothpicks, broaches and bits of broken instruments, pieces of rubber dam, and rubber ligatures used in orthodontic work.

In treating pyorrhœa it is advisable to take preliminary radiographs, and subsequently others at intervals of say six to twelve months to observe the results of treatment and their permanence.

Bone Infections (Necrosis, Osteomyelitis).

Those bone infections such as rarefying and condensing osteitis which have been mentioned above need not be considered again. There is however, the important condition of necrosis of the jaws or alveolus, for the diagnosis of which the radiograph is extremely useful. The appearance is of a radiolucent area differing in appearance from cysts or apical ababscesses in that there is a less distinct line of demarcation between normal and diseased bone. The radiolucent area due to necrosis shows a very gradual increased opacity until normal bone is reached.

Acute osteomyelitis of the jaws is too acute and rapid to produce any bone absorption so that radiographs do not help in diagnosis. In the case of diffuse osteomyelitis radiography is of great assistance. Fortunately it is of rare occurrence in the jaws. It usually spreads through the entire jaw and as the teeth are generally very loose in the affected area, pyorrhœa is first thought of. The radiograph, however, at once establishes a correct diagnosis. In the early stages we find a rarefied condition in the cancellous part of the jaw due to infection in the narrow spaces between the trabeculæ of bone. Later, channels are seen to form, and in the radiograph this gives the appearance of worm eaten wood. At this stage necrosis of the bone sets in and sequestra may become separated from the rest of the bone, and even spontaneous fracture of the jaw may occur.

I think from the evidence I have given, you will recognise the importance and immense value of radiography to the Dental Surgeon, and if it stimulates any of you to give greater attention to this subject my object will have been achieved, viz., that of interesting you in the subject.

The powers that be have recently ordained that the wealthy dental and medical students of this hospital shall pay one shilling per film for radiographs of their teeth, but do not let this deter you from seeking the invaluable aid of the radiographs in diagnosing any obscure dental conditions from which you may suffer. It may save you many teeth and much suffering, and will convince you, a great deal more than this paper can do, of the value of radiography.

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The Treasurer's Prize Essay.

Some Determinations of Basal Metabolic Rates.

By E. C. WARNER.

THE basal metabolic rate is a measurement which has come into use only in the last few years. A definition of this quantity is relatively simple, and may be expressed as the minimum amount of metabolism in the post-absorptive state which must occur to maintain a unit quantity of the body. By far the most important source of loss of energy from the body at rest is through the skin in maintaining the body temperature (this according to Starling accounts for 80 per cent. of the total loss), and so we usually express the basal metabolic rate in terms of unit area of surface.

Of course, in an animal which is neither gaining nor losing weight, the energy output is equivalent to the energy intake, and so we could express the metabolism in terms of the energy absorbed in the form of food and oxygen. This method is impracticable, for, in the first place, the patient would have to be put on a very monotonous and very carefully controlled diet over a long period to adjust it so that the body weight kept constant; moreover, due allowance would have to be made not only for the food intake by the mouth and lungs, but also for that part of it which is not assimilated and is lost in the excreta! And lastly we could not eliminate the stimulating factor of food itself on metabolism.

So, then, the method usually adopted is to measure the energy output rather than the energy intake. There are various methods for doing this. The most direct of these is undoubtedly that of Benedict, in which the heat lost by the resting body in the post-absorptive state is absorbed and measured directly by the heat calorimeter. This method is prolonged and costly, and is, therefore, unsuitable for clinical purposes. But with the aid of this calorimeter Benedict has shown that it is possible to measure the energy output in terms of the respiratory exchanges.

The principle of the methods now used for clinical purposes is therefore to determine the amount of CO_2 expired or of oxygen inspired over a given period of time and to give these their heat equivalents (expressed in calories). The method adopted in all the succeeding experiments is as follows: A triangular rubber face-piece is fitted over the nose and mouth of the patient. This is done after first gaining the confidence of the patient by asking him to hold it to his face and breathe through it. The face-piece is then tightly strapped to the face by buckling it to the head cap corresponding to the mask, and a careful inspection is made several times during an experiment to be sure that no leak is occurring between the face and the face-piece. The valves in the mask which are by far the best are those made of rubber flaps working against a metal grating—these are far more reliable than the mica valves. Finally the mask is connected to a Douglas Bag by corrugated rubber tubing, the bag being kept well out of sight of the patient by means of screens.

Possibly even more important than the type of apparatus used is the preparation of the patient for the test, and securing his comfort during the test. Now it is well known that metabolism is increased by food, owing to its specific dynamic action, and in this respect protein has a far greater effect than either fat or carbohydrate. The preparation of the patient is therefore to allow no solid food at all for as many hours as possible before the test. The ordinary hospital routine is very convenient for this purpose. The chief meal of the day is dinner at 12 o'clock. A light tea of bread and butter and tea is taken at 4 p.m. and a supper of cocoa and bread and butter at about 7 p.m. So that when the patient is excluded from taking any more food until after the basal metabolic test at 10 a.m. the next morning, he has partaken of little food (and no protein) for 22 hours, and no food at all for 15 hours. For the test itself it is of the utmost importance to make the patient as comfortable as possible. He sits up in bed resting his back against pillows and is given something to read which will interest him (as, for instance, a novel), and which will divert his attention over a period of $1\frac{1}{2}$ to 2 hours (an

ordinary newspaper is not entertaining enough for the average patient and is insufficient to absorb his attention completely). It is found quite practicable to allow patients to wear spectacles as well as the mask and valves.

In a test of this sort there is naturally a huge psychological element which must be eliminated as far as possible. This affects the general metabolism as well as the pulse rate and the depth and frequency of the respirations. These last two are indicators of the degree of excitement of the patient, and in order to be sure that the metabolism has become normal, we must rely on observations of the pulse and respiration. Of these two we have found that the pulse rate is affected the least and may not be affected at all. In our experience the greater the amount of the psychological disturbance the more likely is the pulse rate to be raised, whereas the respiration is always affected.

So, then, it is essential in the first place to be sure the pulse rate has fallen to normal. For this the radial pulse rate is taken and the normal assumed to be that taken by the nurse and charted just previously. The pulse rates taken by the nurse are not necessarily true records of the resting pulse rate when a patient is first admitted into hospital (especially is this true in cases of hyperthyroidism), but when the pulse rate is taken four-hourly, then as the patient becomes used to the procedure and to the nurse, the chart soon comes to represent the actual pulse rate. In the case of patients with hyperthyroidism it is inadvisable for a comparative stranger to be continually taking radial pulse rates, and so whenever possible we have counted the visible carotid pulsations, sometimes so very obvious in these patients. As to the effect of emotional excitement on the respiration when a mask-and-valves is worn, we have found that the rate may become faster or slower. We have seen a normal respiration rate reduced to one of two per minute when the mask is worn, but this is unusual and by far the commonest effect is a quickening of the rate of breathing, perhaps to 30 or 35 per minute. It is essential, therefore, to count the pulse and respiration rates periodically, and not to take a final sample of expired air until they have both become as steady as possible. The importance of this is well illustrated by the case K. D. On this occasion we waited only ten minutes (because a physician was coming to see the patient shortly afterwards). It will be seen that the result was 25 per cent. higher than the results obtained before and afterwards when more time was allowed before a final sample was taken.

One effect of the excited breathing is that co-incident with the preliminary rapid respirations, the total volume of air breathed is much increased, and CO_2 is "washed out" from the lungs. By this means the CO_2 tension in the alveoli is lowered and so the CO_2 tension in the blood is lowered also. Thus an amount of CO_2 is expired which is much above that representing the metabolism occurring at the same time. With regard to the oxygen intake however, the forced breathing causes a rise in the oxygen tension in the alveoli, but since the hæmoglobin is already practically saturated in the arterial blood, an increased amount of oxygen cannot be absorbed into the blood (except a negligible amount by actual solution). It follows, therefore, that the oxygen intake is a far better index of metabolism than is the CO_2 output, because the errors due to psychological disturbances are less. For this reason some methods (e.g., that of Benedict and Roth[1]) only measure the oxygen intake, although of course it is more accurate when both are measured. At the same time we know that the respiratory quotient $\left(\frac{CO_2 \text{ output}}{O_2 \text{ intake}}\right)$ is about ·70 in a fasting subject. If the respiratory quotient is raised considerably, then it is due to a washing out of CO_2 without a corresponding intake of oxygen, and so the quotient, which may reach 1·0 or 1·1 shows that the subject was in an excited state when the gas was collected.

For any patient therefore we have waited until the pulse and respiratory rates have settled down as far as possible to the normal values before taking a satisfactory sample of expired air; we have frequently waited 1 to $1\frac{1}{2}$ hours for this to occur. At varying intervals during this time samples are collected in the bag, but are subsequently driven out again. This has the three-fold advantage of washing out the bag completely, and also the patient becomes accustomed to samples of expired air being taken out and to breathing against the slightly increased resistance involved in breathing into the bag. When the patient has become accustomed to the novelty of the test a final sample is collected in the bag over an interval of time noted by the stop watch. The

period chosen in our earlier estimations was from 4 to 6 minutes when using a bag of 60 litres capacity and in our later estimations was 9 minutes when we used a bag of 120 litres capacity. The period of time chosen must be sufficiently long to average the small variations from minute to minute, but must not be too long so that the bag becomes at all distended, for then an increased resistance is opposed to expiration which is sufficient to become recognisable by the patient.

It is contended by some that if the mask is worn over as long a period as we have used, the mask becomes unbearable and the patient is disturbed by reason of this. This has not been our experience with this type of mask. From the very first it is always essential to gain the patient's confidence when applying the mask. The patient sometimes has the most extraordinary ideas about the mask and especially is this so with the cases of hyperthyroidism. Usually the mask is associated with that for the administration of nitrous oxide gas and the patient comes to think that the method is an ingenious method of attempting to administer an anæsthetic unsuspectingly. It is always best to explain the principle of the method rapidly to the patient immediately on arrival, to give the patient the mask to handle and to ask him to apply the mask himself, leaving him to experiment with the mask whilst the screens, etc., are adjusted. In the case of patients who are still suspicious we have usually taken the mask to pieces and demonstrated which is the inlet and which the outlet valve, and showing that the bag is connected to the outlet valve and nothing at all is connected to the inlet valve. During the test the patient is always asked to state if the mask becomes uncomfortable and in no case has a complaint been made (we have preferred not to give the patient a rest period by taking the mask from the face, as is recommended by some, as this distracts the attention too much from the book he is reading).

We have adopted the above precautions in all our cases, although we were not so stringent in Cases 1 and 7, these being the first determinations that we performed. To estimate the respiratory exchanges from the final sample of expired air it is necessary to pass the gas through a meter (preferably a water meter) and so measure the total volume of gas, and at the same time two samples of gas are collected into Haldane's vacuum tubes for subsequent analysis in Haldane's gas analysis apparatus. From these data of the volume and composition of the expired air collected over a known period we can arrive at the total CO_2 and oxygen exchanges and at the respiratory quotient. It now remains to convert these into their calorie equivalents and to express them in terms of the unit of body surface. To obtain the calorie equivalents we have adopted the method described by Wilson.[2] From tables we can obtain the calorie equivalent of the respiratory quotient, and by multiplying this by the total O_2 intake per hour, we arrive at the calorie output per hour. It is contended by Dreyer[3] that the calorie value should be expressed in terms of the weight calculated from the measurements of the chest and trunk and not in terms of surface area, and for this purpose he has drawn up a formula. But against this method we realise that the energy of the body is almost entirely dissipated through the skin, and also that the calorie value per unit of surface area is extremely constant in all classes and sizes of warm blooded animals, whereas the calorie value per unit of body weight varies considerably, as is shown by the following table taken from Starling's Principles of Physiology.

	Calories per Kilo Body Weight.	Calories per Square Metre Body Surface.
Man ...	33	977
Dog 1 ...	35	1069
Dog 2 ...	55	1040
Rabbit...	50	1109
Guinea Pig	223	1091

Such fundamental principles show that the calculation based on heat loss per unit of surface area should be by far the more accurate. At the same time it is realised that if a person becomes very stout or very emaciated the surface area does not alter in proportion to the changes in body weight. So it may be of advantage in using Du Bois' formula—Surface area=·007184×(weight) 0·425× (height) 0·275 to use the calculated weight derived from the chest and stem length (trunk) measurements by Dreyer's Method[4] rather than to use the actual weight.

A specimen of the method of calculation is now given.

K.D., aged 45.—Basal metabolic rate determined on 17th December, 1923. The sample of expired air was collected when the pulse rate was 102 and the respiration rate 16 per minute.

Total volume of expired air=34·6 litres in 6 minutes.

Gas analysis of expired air—

Sample 1.

Total volume, 9·768.
After CO_2 absorbed 9·474. ∴ $CO_2\%$ = 3·01%.
After O_2 absorbed 7·798 & $O_2\%$ = 17·14%.

Sample 2.

Total volume, 9·712.
After CO_2 absorbed 9·425. ∴ $CO_2\%$ = 2·96%.
After O_2 absorbed 7·750 & $O_2\%$ = 17·23%.

∴ Average CO_2 = 2·99%.
Average O_2 = 17·19%.

$$\therefore \text{Respiratory Quotient} = \frac{2\cdot99 - \cdot04}{20\cdot96 - 17\cdot19} = \frac{2\cdot95}{3\cdot77} = \cdot78.$$

From tables, caloric value corresponding to respiratory quotient of ·78 is 4·776.

∴ Total calorie output per hour.
= 4·776 × oxygen output per hour.

$$= 4\cdot776 \times \frac{3\cdot77}{100} \times \frac{34600}{1000} \times \frac{60}{6} \text{ cals. per hour.}$$

Measurements.

Total height 158·8 cms. Chest (mean) 69·0 cms.
Stem height 86·4 cms. Stripped weight 53·3 kilos.

From Du Bois' formula (most readily derived from nomogram) 3—Surface area = 1·54 sq. ms.

From Dreyer's tables, calculated weight from—

Stem length = 59·28 kilos.
Chest = 44·56 kilos.
∴ Average = 51·92 kilos.

Using this calculated weight and applying Du Bois' formula—Surface area = 1·52 sq. ms.

Du Bois' Formula.

Calorie output per hour per sq. metre.

$$\text{Body surface} = \frac{4\cdot776}{1\cdot54} \times \frac{3\cdot77 \times 34600 \times 60}{100 \times 1000 \times 6} \text{ cals.}$$

= 40·5 cals.

Du Bois' Formula (applying correction for calculated weight).

Calorie output per hour per sq. metre.

$$\text{Body surface} = \frac{4\cdot776}{1\cdot52} \times \frac{3\cdot77 \times 34600 \times 60}{100 \times 1000 \times 6} \text{ cals.}$$

= 41·0 cals.

From tables, the basal metabolic rate for woman 40–50 years of age should be 36.0.

$$\therefore \text{The B.M.R. is raised } \frac{40\cdot5 - 36\cdot0}{36\cdot0} \times 100$$

= + 12·5%

(Du Bois' method).

$$\therefore \text{The B.M.R. is raised } \frac{41\cdot0 - 36\cdot0}{36.0} \times 100\%$$

= + 13·9%

(Dreyer's modification of Du Bois' method).

When we adopt this method of arriving at the basal metabolic rate and compare it with the normal for the same age and sex so determined by Aub and Du Bois, we can say that the basal metabolic rate is raised or lowered by a certain percentage above or below the normal. It will be seen that in those cases in which duplicate or triplicate analyses were made either on the same day or on adjacent days, closely corresponding values were obtained.

It now remains to consider the relationship of the basal metabolic rate to the cases. Our small series comprises seven cases of diseases of the thyroid gland, a case of each of hypopituitarism, tuberculous disease, diabetes mellitus and anorexia nervosa, and finally three cases still under investigation in whom the determinations were done to demonstrate any increased or decreased thyroid activity. A summary of each of these cases follows.

DISEASES OF THE THYROID GLAND.

Hyperthyroidism of Graves' Disease.

CASE 1.—K. S., aged 23, was admitted into Evelyn under Mr. Slesinger. She had never been ill until 12 months ago (November, 1920) when after the birth of her only child and after much worry with her unemployed husband and dying brother-in-law, she noticed a small lump in the isthmus of the thyroid. This gradually increased in size until it became very obvious on both sides of her neck, and she became more irritable, anxious, and perspired a great deal. Her friends noticed an exophthalmos developing. In April, 1921 (5 months after the commencement of symptoms) patient was admitted to a medical ward and notes were made in addition of a loss of hair, a fine tremor of the fingers, amenorrhœa, and a loss of 4 stone in weight in 5 months. At this time her pulse was 130. By July, 1921, she had regained 2 stone in weight, and at this time her right superior thyroid artery was ligatured. In November, 1921, she was readmitted into Evelyn with pulse 140, temperature 95·5, respirations 30, and a total recovery of $3\frac{1}{4}$ stone in weight. After two days' rest in bed her pulse had become 90 and respirations 20. Her basal metabolic rate three days after admission was raised 42 per cent. Mr. Slesinger then performed hemi-thyroidectomy under gas and oxygen. The report on the gland removed was, "An exophthalmic goitre with a group of typical fibro-caseous tubercles." Fif-

teen days after the operation her basal metabolic rate was raised 65 per cent., and her pulse was 100 and respirations 20.

This patient is a typical case of exophthalmic goitre which had subsided considerably as a result of medical treatment before operation was performed. Fifteen days after hemi-thyroidectomy her pulse was ten per minute above that before the operation, and her basal metabolic rate was raised a further 23 per cent. I am informed by Dr. Campbell who saw this patient 15 months later that no improvement was noticed after this interval.

CASE 2.—F. J., aged 16, was admitted into Esther under Dr. Beddard. She was of a very excitable nature and had a medium degree of exophthalmos, a considerable uniform swelling of her thyroid gland and a marked tachycardia, her pulse being regular at 140 per minute. Her basal metabolic rate was raised 32·5 per cent. Her urine was normal. In spite of prolonged hospital treatment this patient was little improved on discharge from hospital 4 months later.

CASE 3.—W. L., aged 22, was admitted into Stephen under Dr. Ryle. His family history and his personal history were both very good, and he had been perfectly fit until three weeks before admission to hospital. At this time his eyes were noticed to be becoming more prominent and he had become more thirsty than usual. On examination he had pulse 120, temperature 98 and respirations 25. His heart beats were very forcible, but otherwise normal, and examination of the thyroid gland showed it to be moderately enlarged and to have a well-marked systolic bruit over it. He had some exophthalmos which became much more evident when he was excited, and the usual eye signs associated with Graves' disease were elicited. In addition there was present a fine tremor of the hands and fingers. His basal metabolic rate was raised 10·9 per cent. At the same time he had glycosuria, a resting blood sugar of 0·16 per cent., and a very low sugar tolerance. The patient had five very septic teeth extracted, and on discharge three weeks later his exophthalmos was much less evident and his nervousness improved whilst his sugar tolerance had become almost normal. This is evidently a case of hyperthyroidism associated with glycosuria, both of very acute onset and which were both much benefited by rest, dieting and the extraction of some very septic teeth.

CASE 4.—V. E., aged 20, was admitted in November, 1923, into Esther under Dr. Mutch. She had been subject to frequent colds, but otherwise had been very well until four months previously when she noticed a swelling in her neck. This gradually increased in size, and she began to tire easily and to get abnormally dyspnœic on exertion.

Menstruation had always been very irregular indeed. On admission she had a frightened expression and nervous disposition. There was a fine tremor of the whole hand and slight exophthalmos, but there were no ocular signs such as are encountered in some cases of hyperthyroidism. Her pulse was 95, temperature 98·5 and respirations 24. Her heart was hypertrophied and the thyroid showed a soft, almost uniform enlargement which gave a palpable thrill. While in hospital for seven weeks her weight kept steady, but her pulse gradually rose to 115; her temperature was of a swinging nature, frequently showing spikes to 99·0 or 99·5 at night time. Her basal metabolic rate determined two days before discharge showed an increase of 28·2 per cent. above normal. Mr. Slesinger considered "the hyperthyroidism was due to toxic absorption, possibly from sinus infection, and therefore not a case suitable for operation," but no attempt seems to have been made to investigate possible sources of septic absorption.

Whatever the cause, this patient was a case of hyperthyroidism which had become rather worse during her seven weeks in hospital.

CASE 5.—A. H., aged 30, was admitted into Martha in December, 1923, under Mr. Fagge, for a swelling in her neck. It was first noticed 12 months previously, and from this time it had slowly increased in size. On admission her pulse was 130, temperature 98·4 and respirations 22. She was of a nervous temperament and had obviously lost weight. She spoke quickly and jerkily and her hair was coming out rapidly, but there was no marked tremor of the fingers and no exophthalmos. Examination of the thyroid revealed a large rounded lump in the isthmus which extended into the right lobe. Her basal metabolic rate on the third day after admission was raised 36·5 per cent. The adenomata were excised, the microscopical sections revealing "a cystic colloid adenoma."

This case is a simple one of hyperthyroidism associated with an adenoma of the thyroid gland.

Hyperthyroidism due to toxic adenomata.

CASE 6.—K. D., aged 45, was admitted under Dr. Hunt into Mary in December, 1923. She was unmarried and of a healthy family. She had had good health until seven years before admission when she had sudden pain in both eyes one evening and found she was completely blind when she awoke. Her eyesight gradually recovered, but about this time her friends noticed prominence of both eyes developing. Two years before admission the patient first noticed a swelling in her neck, and since then she had developed palpitations and shortness of breath, and besides losing weight had become more nervous and emotional. On admission her pulse rate was 105, temperature 98·4, and respirations 20. She was fatigued and had an irritable manner. There was an obvious thyroid enlargement, a small degree of exophthalmos and there were frequent purposeless movements of her head and trunk. Her pupils were dilated and reacted poorly to light; there was a slight tremor of the hands and fingers; there had been amenorrhœa twelve months ago lasting for six months, but her periods had been normal for the last six months. The thyroid showed a medium degree of uniform enlargement with a very definite and hard lump the size of a marble in the upper pole of the right lobe, and a larger more ill-defined mass in the body of the left lobe. There was no palpable bruit over the gland. Nine days after admission into hospital her basal metabolic rate was raised 12·5 per cent., and after treatment for a further three weeks was raised 1·9 per cent., although her irritability was still pronounced. Mr. Slesinger removed the right lobe of the gland which was found to contain an adenomatous mass with a small calcareous nodule in the centre. The report on the section of the gland was "a colloid adenoma with cells in which the epithelium is polymorphic and shows signs of capsule infiltration of early malignancy." This case resembles the typical case of Graves' disease in many particulars, but is atypical in the late age of onset, the severity of the emotional side of the picture with much less marked physical signs, the regularity of the menstrual cycle over the period of seven months preceding the operation and the small degree to which her basal metabolic rate was raised. These facts, coupled with the definite adenomata in the gland (which adenomata must have been of long-standing to be calcareous) point to the case being one of the type labelled "toxic adenomata." It is probable that the thyroid was not the primary cause of the disease, but that this was a reaction to some infection. This is confirmed by the occasional presence of an irregular pyrexia, and may possibly be correlated with a large inflamed right tonsil.

Parenchymatous Goitre.

CASE 7.—W. R., aged 14, was admitted under Mr. Hughes to Lydia for a swelling in the neck which had been present for some years, but which had not tended to become larger until two years before admission. It then began to increase in size, and twelve months later this increase was very rapid, causing inconvenience to breathing and a feeling of "tightness" in the neck. She was given three doses of X-rays, but as there was no improvement she was admitted into hospital. On admission her pulse was 75, temperature 97·0, and respirations 20, and she was well nourished. There were no signs of increased thyroid activity, such as exophthalmos or tremor. The gland itself showed a diffuse bilateral enlargement, rather more marked on the right side, and the gland was felt to pulsate. Hemithyroidectomy was performed on the right side, and the microscopist's report on this was "colloid hyperplasia typical of a parenchymatous goitre." Her basal metabolic rate determined six days after admission (and before operation) showed an increase of 14·7 per cent. This case, characteristic in the early age of onset, thus showed no signs or symptoms suggestive of thyroid over-activity, the reason for the operation being the slight degree of obstruction to respiration.

MISCELLANEOUS CASES.

Hypopituitarism.

CASE 8.—C. H., aged 27, was admitted into Esther in February, 1923, for obesity. In 1920 she had been admitted for headaches and increasing obesity. At this time her pulse was 72 and temperature 98·0, and she weighed 20 st. 8 lbs. Notes were made of a great deposit of subcutaneous fat, her chest measurement being 50 inches; also of the patient being of normal intelligence, and having poorly developed breasts and an apparently normal thyroid. Her menstrual periods had started at the age of 15, and had occurred irregularly about twice a year. X-rays showed no enlargement

of the sella tursica and her visual fields were normal. She was therefore diagnosed as suffering from hypopituitarism, and under treatment with thyroid she lost 3½ st. in weight. Dr. Campbell had found her basal metabolic rate to be 15·7 per cent. below normal. On re-admission under Dr. Fawcett in February, 1923, her pulse was 90, temperature 96·0, and respirations 20, and her weight had become 23 st. 3 lbs. All the systems of the body were normal, but only the isthmus of the thyroid was palpable. Dr. Campbell found her basal metabolism at this time to be 14·1 per cent. below normal. She was given thyroid sic. gr. i., t.d.s., which was later increased to grs. iii, t.d.s., and Ext. Ant. Pituitary grs. xv was also given until May, when they were discontinued on account of diarrhœa. Nevertheless her weight had sunk to 18 st. She was then given a course of N.A.B. on account of a gummatous ulcer of the leg and a strongly positive Wassermann reaction. Dieting had reduced her weight to 15½ st. by November, 1923 ,and just before her discharge her metabolic rate was 11·2 per cent. below normal.

This is therefore a straightforward case of deficiency of the anterior lobe of the pituitary, and is of interest in view of the consistently subnormal character of the basal metabolic rate.

Diabetes Mellitus.

Case 9.—A. M., aged 41, was admitted under Dr. Fawcett in October, 1923, for pain, numbness and tingling in the legs and for dimness of vision. He had always been well until 12 months before admission, when he had indigestion, flatulence and constipation. He gradually became very weak, and on occasion he could not walk at all. He then began to drink much larger quantities of water and to pass much larger quantities of urine, he developed an appetite which at times became ravenous, and he lost nearly 2½ st. in weight in twelve months. During the four months preceding admission he had numbness and tingling in both arms and legs and his eyesight began to fail. On admission he proved to be very wasted; his urine was pale with a specific gravity 1042, and contained no albumen but much sugar acetone and di-acetic acid; his central nervous system showed pupils which reacted to light and to accommodation, but there was an opacity in the right lens. The optic discs were somewhat pale on the temporal side, and there was a central scotoma and reduction in the size of the visual fields in both eyes. The only other abnormal nerve signs were an abscence of knee and ankle jerks on both sides. On admission the pulse was 75, temperature 97·5 ,and respirations 22. His fasting blood sugar three days later was ·365 per cent. and he improved considerably with 15—30 units of insulin per diem together with suitable dieting.

This case is of interest in that it is typically one of diabetes mellitus with most of its complications. It is believed by many that this disease is due to a disturbance of endocrine balance, and so the basal metabolic rate becomes of interest from this point of view. Five weeks after admission, and after three weeks' treatment with insulin his metabolic rate was 16·0 per cent below normal (insulin was temporarily omitted just prior to the determination). It does not appear that in this case a relative over-activity of either the thyroid or the anterior lobe of the pituitary could have played any part in the cause of the diabetes.

Tuberculosis.

Case 10.—B. C., aged 39, was admitted into Esther in October, 1923, for progressive weakness and shortness of breath. She had had "bronchitis" in the winter for several years. Three years ago she first noticed a swelling in her neck, but she was reassured by her doctor, and it did not get larger. At the beginning of 1923 she began to get breathless with the slightest exertion, and in March she developed a bad cough, with sputum often streaked with blood, but in which no tubercle bacilli could be found. Her breatlessness became worse and she became progressively weaker. In September, 1923, she was diagnosed exophthalmic goitre, but Mr. Slesinger disagreed with the diagnosis and she was admitted to Esther in October, 1923. Her pulse was 85, (mouth) temperature 97·0, and respirations 20 ,and she had lost 16 lbs. in weight in the last three to four months. On admission she was thin with slight exophthalmos: she was nervous and complained of a loss of appetite, a dry cough, and considerable dyspnœa on exertion. There were large and small soft glands all over the body, a definitely palpable spleen, and dilated veins over the thorax. On section the supratrochlear gland "showed early tuberculous changes." Her chest showed diminished air entry at both apices and X-rays showed the lungs "to be choked." Dr. Marshall said the case was a typical one of root

phthisis. The thyroid gland was enlarged and hard and there were no ocular signs of Graves' disease and no tremor of the fingers. Later tubercle bacilli were demonstrated in the sputum. Her basal metabolic rate determined six and again twelve days after admission, showed increases of 27·0 per cent. and 33·4 per cent. respectively.

This case is evidently one of generalised glandular and pulmonary tuberculosis, and a certain amount of enlargement of the thyroid gland was noticed when the symptoms of infection first began. The raised metabolic rate is an expression of resistance to the infection, and is probably affected in part at least by increased activity of the thyroid gland.

Anorexia Nervosa.

Case 11.—J.H., aged 26, was admitted under Dr. Ryle, complaining of a continuous dragging pain in the left hypochondrium which had been present continuously for eight years. On admission she weighed 4 st. 4 lbs. and she said that six months previously she had weighed 2 st. 4 lbs. Every investigation as to the cause of her loss of weight and indigestion proved negative, and finally Dr. Ryle thought she must be a case resembling one of "anorexia nervosa," and that she was continually vomiting her food unknown to the nursing staff. When she was kept in bed continuously, she gained 12 lbs. in weight in two months. Her systolic and diastolic blood pressures were 80 mm. and 58 mm. respectively, but there was no pigmentation to suggest Addison's disease, and the low pressures were thought to be due to the virtual starvation. This was confirmed by the basal metabolic estimation, which even when performed one month after gross starvation had ceased, was still 7 per cent. subnormal.

Results and Conclusions.

(The analyses, etc., from which the basal metabolic rates mentioned above have been calculated are all set out on pp. 434-435.)

It thus appears from the results that the method we have used for determining basal metabolic rates can be relied upon to give consistent results, so that a series of readings taken consecutively on the same day show a maximum deviation of 13·1 per cent. This value for the maximum deviation occurs in Case 14 and is quite exceptionally high, which may be in part due to the difficulties under which this set of observations were taken. We would consider that using this method, all results falling within 7 per cent. of the normal basal metabolic rate are within the limits of normal. One of the chief sources of error lies in not allowing the patients sufficient time to settle down completely after the period of excitement due to the novelty of the test, but if the pulse and respiration rates are carefully watched, this can be eliminated to a very large degree. The importance of this is well illustrated in Case 6 (K. D.). Here the result was 35·3 per cent. higher on the occasion that only ten minutes were allowed the patient to become accustomed to the test, than when an hour and a quarter was allowed on the following day.

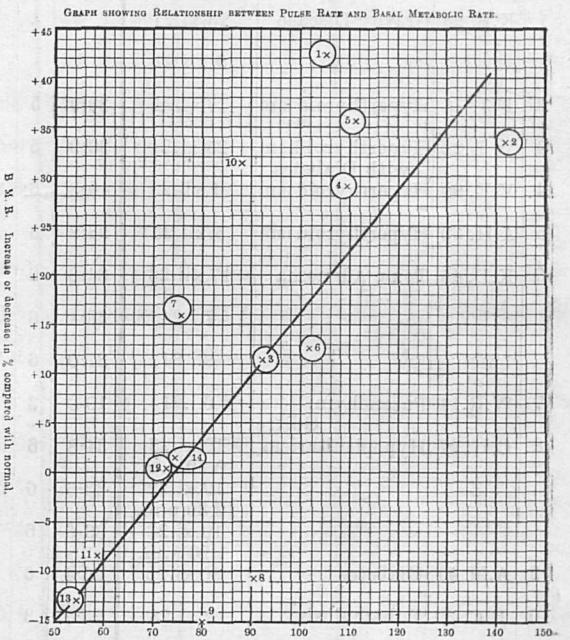
In calculating the results we consider that estimations on animals amply justify using the surface area and not the weight as the variable factor. As to whether we should use the true net weight of the subject or the "calculated" net weight in using Du Bois' formula, there are some points in favour of each method. Whilst it is true that when a subject gains or loses in weight his surface area may not alter to a corresponding degree, yet we must remember that most of the increase or decrease in weight is in the subcutaneous fat depôts, and secondly we must realise what a remarkable elasticity the skin has, so that in the case of loss of weight, the "slack" in the skin is mostly disposed of by virtue of this elasticity. It is only in the extreme cases of rapid loss of weight associated with general cachexia (e.g. in the cases with malignant neoplasms) that the skin loses some of its elasticity and literally "hangs in folds." Perhaps the strongest argument against using Dreyer's method of the calculated weight is that in a series of over 100 perfectly healthy students examined by Campbell, Hambly, Pembrey, and Warner,[5] in whom there was no reason whatsoever why the actual weight should not be the correct one, yet this differed from the calculated weight by as much as 10 kilos in some cases. So that we much prefer to accept the surface area as that calculated from the original Du Bois formula. Nevertheless in such an extreme case as C.H. (number 8), who at one time weighed over 23 stone, it is of advantage to check our results by using the modified Du Bois method as well. In this case it is extremely satisfactory to know that the two sets of figures agree so closely. It is also of interest to notice that although Dr. Campbell's estimations were made

three years and also ten months respectively before our own, and although the weight has correspondingly varied from 20½ st. to 23 st., and was only 15½ st. when our observations were made, yet the basal metabolic rate calculations show a remarkable uniformity.

Although we do not wish to attempt to draw hard and fast conclusions from a limited number of cases, yet on looking through our results one cannot help but notice how closely the pulse rate during the observations corresponds to the basal metabolic rate. We have drawn a graph correlating these two values, omitting the two cases (1 and 7) in which, as already stated, we know the basal metabolic rates to be too high. It will be seen that the exceptions are the cases of diabetes mellitus (number 9) and of tuberculosis (number 10), in both of which there are no clinical signs of increased or decreased thyroid activity and in which the pulse rate would be affected by the primary disease. Apart from these two cases the pulse rate is a linear function of the basal metabolic rate. This is in agreement with the results of Boothby, who showed that during muscular exercise the pulse rate is in direct proportion to the metabolic rate.

Having established this relationship we may say conversely that the basal metabolic rate may be accurately inferred from the pulse rate, provided the subject is lying in bed in the post-absorptive state in an atmospheric temperature of about 60° F. and that the pulse rate is taken under conditions precluding an excited state of the patient. Although this relation is true in the majority of cases, it probably does not hold good in those people who have a slow pulse rate as a result of physical training, but this is a point we intend to investigate in the near future.

When we come to correlate the values of the basal metabolic rate with the clinical findings, we see that the cases of hyperthyroidism show the largest increase in the rate. In these cases of hyperthyroidism it is striking to notice that of the five cases of the hyperthyroidism of Graves' disease, two (cases 1 and 3) showed definite signs of infection. Thus case 1 showed tubercles in the gland itself and case 3 showed a remarkable recovery from both hyperthyroidism and diabetes mellitus coincident with the extraction of some very septic teeth. Yet again we have in the case of tuberculosis (case 10) a condition which was mistaken by some for Graves' disease, but which showed extensive pulmonary and glandular tuberculosis. The high resistance to this disease is associated with a considerably raised metabolism, which explains the increased rectal temperature and the loss of weight, this latter, therefore, not being entirely a matter of diminished food intake. Since cases of tuberculous disease may be associated with a moderate enlargement of the thyroid gland, as in this case, it is more than possible that an increased activity of the gland is one of the mechanisms brought into play in resisting this disease.



GRAPH SHOWING RELATIONSHIP BETWEEN PULSE RATE AND BASAL METABOLIC RATE.

It will be seen that allowing for the rather too high estimations in case 1 and 7, these would probably have fitted in closely to the line drawn.

⊗ Indicates disease or suspected disease of the thyroid gland.

The case of ordinary diabetes mellitus (case 9) is in contrast to case 3, for whereas in the first of these the glycosuria is not (at any rate at the moment) associated with an increased activity of the thyroid gland, there is distinct evidence of increased thyroid activity in case 3.

In the case of toxic adenoma of the thyroid the increase in the metabolism was small, and especially so in comparison with the clinical symptoms. The case of the large parenchymatous thyroid (case 7) showed a small increase in metabolic rate, but this was associated with no clinical signs or symptoms suggesting hyperthyroidism.

Among the miscellaneous cases it is interesting to find that the case of hypopituitarism

CASE	Initials and Age	DISEASE	DATE OF OBSERV'N.	Vol. of Expired Air in Litres	Time in Minutes	Vol. per Minute	CO_2 Average	O_2 Average	Respy. Quot.	Actual Weight in Kilos	Total Height in Cms.	Chest Cms.	Stem Length Cms.	Surface Area, Du Bois Formula, Sq. Mms.	Basal Metabolic Rate, Du Bois
1	K.S. 23	Graves' Disease	23.xi.21							55·7	157·1				52·5
			9.xii.21							55 1					61·1
2	F.J. 16	Hyperthyroidism	17.vi.24	30·9	5	6.2	3·16	16.57	·71	42·3	160	69·88	86·5	1.39	55·0
3	W.L.22	Hyperthyroidism with Diabetes	25.xi.24	30·9	5	6·2	2·31	17·37	·63	47·6	156·5	76·5	82·5	1·44	43·8
4	V.E. 20	Hyperthyroidism	21.xii.23	40·3	6	6·7	3·19	16·71	·74	56·2	157·5	80·0	83·3	1·56	48·72
5	A.H. 30	Hyperthyroidism	5.xii.23	28·2	5	5·64	3·17	16·84	·76	41·7	152·4		76·2	1·33	50·1
6	K.D. 45	Toxic Adenoma	17.xii.23	34·6	6	5·77	2·99	17·23	78	53·3	158·8	69·2	86·4	1·54	40·5
			7.i.24	39·4	6	6·57	3·07	16·88	74	53·3	158·8	69·2	86·4	1·54	49·4
			8.i.24	31·0	6	5·17	2·71	17·07	·69	53·3	158·8	69·2	86·4	1·54	36·7
7	W.R.14	Parenchym. Goitre	6.i.21	19·0	3	6·33	2·82	17·33	77	41·5	152			1·34	49·3
8	C.H. 27	Hypopituitarism	19.xi.23 10.30 a.m.	34·8	6	5.8	3·07	16·89	·74	97·1	163	125	83·	2,03	32·2
			19.xi.23 12.30 p.m.	33·6	6	5·6	3·48	16·46	·76	97·1	163	125	83·	2·03	32·0
			19.xi.23 1.20 p.m.	33·6	6	5·6	3·59	16·66	·83	97·1	163	125	83·	2·03	34·4
9	A.M. 41	Diabetes	30.xi.23	26·4	6	4·4	3·24	16·46	·71	58·3	175·9			1·72	32·4
10	B.C. 39	Tuberculosis	2.xi.23	25·7	3	8·57	2·01	18·41	·74	41·2	164·7	66·5	81·3	1·39	46·4
			8.xi.23	37·3	4	9·33	1·94	18·40	·74	41·2	164·7	66·5	81·3	1·39	48·7
11	I.H. 26	Anorexia Nervosa	29.ix.23	20·5	5	4·1	2·45	17·32	·66	32·2	157·3			1·23	33·8
12	A.P. 22	Cases under investigation for evidence of Hyperthyroidism and Hypothyroidism	14.xii.24	55·25	9	6·14	2·48	17·89	·79	49·2	168	69·5	93·5	1·54	35·1
			15.xii.24	50·5	8	6·31	2·43	17·63	·73	49·2	168	69·5	93·5	1·54	38·6
13	A.B. 33		24.i.25	27·45	6	4·58	2·95	17·32	·80	54·0	156·2	80·6	84·6	1·53	31·5
			25.i.25	37·45	6	6·24	2·76	18·18	·98	54·0	156·2	80·6	84·6	1·53	34·2
14	M.P. 45		19.i.25 11.8 a.m.	50·2	9	5·58	3·16	17·64	·93	53·8	158·5	72·5	83·5	1·54	35·2
			19.i.25 12.59 p.m.	38·35	6	6·4	2·57	17.65	·77	53·8	158·5	72·5	83·5	1·54	39·2
			19.i.25 1.19 p.m.	53·4	9	5·82	2·54	17·87	·81	53·8	158·5	72·5	83·5	1·54	34·4

NOTE.—1. Unfortunately the original figures from which the final results have been calculated in Case 1 have been

2. The Basal Metabolic Rates is Cases 1 and 7 are probably a little too high, as in these two earlier

		Dreyer.						Chart.		During Observation.		
Normal B.M.R.	Per Cent. ± compared to normal	Calculated Weight from Chest	Calculated Weight from Trunk	Calculated Mean Weight	Surface Area using Dreyer's Calculated Weight in Du Bois' Formula	B.M.R. using Dreyer's Calculated Weight in Du Bois' Formula	Per Cent. ± compared to Normal	Pulse taken at 6 a.m.	Respiration taken at 6 a.m.	Pulse taken at 10 a.m.	Respiration taken at 10 a.m.	
37·0	+42·0							100	20			Before operation.
37·0	+65·0							96	20			After hemithyroidectomy 5 days later.
41·5	+32·5	45·94	59·50	52·72	1·53	49·9	+20·3	132	20	141	19½–21	Pulse rate at 10 a.m. before arrival of investigator=140.
39·5	+10·9	46·38	49·12	47·75	1·44	43·8	+10·9	70	20	90	19½	From Chart the pulse on Nov. 24th and 25th was varying from 71 to 100.
38·0	+28·2	74·25	52·35	63·30	1·63	46·72	+23·0	120	23	108	13–14	
36·7	+36·5							110	20			
36·0	+12·5	44·56	59·28	51·92	1·52	41·0	+13·9	96	20	102	16	
36·0	+37·2	44·56	59·28	51·92	1·52	50·0	+39·0	86	22	108	23–24	Bad result. Only 10 minutes allowed to settle down.
36·0	+1·9	44·56	59·28	51·92	1·52	37·2	+3·3	93	21	100	22	
43·0	+14·7							75				B.M.R. probably rather too high.
37·0	−13·0	179·6	52·15	111·6	2·04	32·1	−13·2	90 approx.				
37·0	−13·5	179·6	52·15	111·6	2·04	31·9	−13·7					
37·0	−7·0	179·6	52·15	111·6	2·04	34·3	−7·2					
38·5	−16·0							80	20			
36·5	+27·0	38·74	48·86	43·8	1·45	44·5	+21·9	84	20		34	
36·5	+33·4	38·74	48·86	43·8	1·45	46·7	+28·0	88	20			
37 0	−8·7							60 approx.				
37·0	−5·1				1·69	32·0	−15·6	80	20	74	18–21	
37·0	+4·3				1·69	35·1	−5·1	70	20	69	18–20	
36·5	−13·7	76·23	55·40	65·8	1·66	29·0	−20·5	56	19	53	14	
36·5	−6·3	76·23	55·40	65·8	1·66	31·5	−13·7			56	17	In this determination the patient had been given a meal, by error, just before the investigation began.
36·0	−2·2	52·51	53·16	52·84	1·53	35·4	−1·7	70	18	71	15–17	The variance of these results may be due to the mask being worn for 3½ hours. This was on account of an obvious loss of gas which was traced later to a faulty Douglas bag, and so the results taken previous to those given were discarded.
36·0	+8·9	52·51	53·16	52·84	1·53	39·5	+9·7	70	18	74	15–16	
36·0	−4·4	52·51	53·16	52·84	1·53	34·6	−3·9	70	18	74	16	

mislaid.

estimations sufficient time was not allowed to enable the patient to settle down completely.

(of the anterior lobe) showed a consistently subnormal rate, this being in accordance with the usual teaching, but for the degree of deficiency the rate is but little diminished in comparison with what it would have been had the thyroid been deficient to allow of the same degree of obesity.

Finally, the case of anorexia nervosa demonstrates that in a starving person the metabolism becomes subnormal, and this corresponds with the low blood pressure and low pulse rate.

In conclusion, I wish to thank the physicians and surgeons for allowing me to make these observations on their patients.

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An Organic Basis for Insanity.

By R. GYWN WILLIAMS.

A Paper read before the Physical Society, and awarded one of the Society's Prizes.

GENTLEMEN,—One of the particular characteristics of the present century is the great progress of scientific research. This is exemplified not only by the number of important discoveries which have been made during the last twenty-five years, but also by the increased attention and encouragement which such researches now receive from the lay public. Almost all branches of research, and Medical research in particular, are subsidised by public funds, while the enthusiasm with which the published results are acclaimed errs, if anything, on the side of being excessive.

Investigations into the causes of mental disorders have secured considerable public support. It is partly for this reason that I make what is almost an appeal that these investigations should be directed rather towards determining the organic factors concerned in mental disorders than in the practice of psychotherapy, psycho-analysis, and in the treatment of "'border line" cases. The modern tendency is to devote most attention to the border line cases—the neuroses, phobias and obsessional states—regardless of the fact that such cases are unlikely, with or without the aid of expert psychiatry, to find their way into institutions for certified lunatics.

Hitherto the border line cases were treated almost as successfully (though perhaps less scientifically) by their family doctors as they now are by the psychiatrist. Though the literature which has grown up along the lines of modern psychological diagnosis and treatment is very extensive and valuable, many of the works have an unfortunate resemblance in quality to those on spondylotherapy and the electronic reactions of Abrams. However that may be, I hope to show that a careful investigation into the psychical derangements which characterise the border line cases is less likely to lead to enlightenment on the subject of insanity than is an exhaustive study of the physical states of the typical cases of recognised forms of insanity.

In order to present my case as clearly as possible, I propose to consider briefly at the commencement the different forms of mental disorder which are indisputably organic in origin, and then to pass on from them to those mental disorders in which the organic basis is still obscure. Finally, I should like to describe the lines upon which, in my opinion, research can best be directed in order to obtain an increase in our knowledge of the causes of insanity, and to add to our present limited resources in treatment.

No attempt will be made to discuss the morbid changes which are described in the different forms of insanity. This is partly because of the difficulty in distinguishing between primary and secondary changes—that is to say between the lesions which cause the mental disorders and those which accompany or follow the disorders—and partly because of my own ignorance of this vast subject. There is another and even more important reason, namely that such discussions would be to little purpose: for while I intend to consider certain

forms of insanity as due to cerebral lesions, these forms are usually so regarded. In the more debatable forms of insanity, for which I intend to postulate an organic basis, organs other than the brain are to be considered as primarily at fault and the changes which even in these cases may occur in the brain as secondary in nature. The insanities will therefore be considered in two groups: the first consisting of conditions due to brain disease or maldevelopment, and the second consisting of the other chief disorders. Of the former group, the first to merit consideration is General Paralysis of the Insane.

The typical text-book G.P.I. presents a clear enough picture: his grandiose, exalted delusions combined with an attitude of well-being which is in marked contrast to his actual state would assure his diagnosis on the psychological examination alone. At the same time it must be remembered that there are cases which on the result of the psychological examination would be classed as simple melancholias or manic depressive psychoses. These diagnoses might be made because of depression, delusions of inferiority or unworthiness, combined with perhaps suicidal tendencies, excited intervals and periods of remission. It is only because of the physical signs and as a result of an examination of the cerebro-spinal fluid that the diagnosis would be changed to general paralysis. Similarly there are cases which appear as confusional states, so much like those seen in senile dementia as to be indistinguishable from that condition. These may remain undiagnosed until they develop characteristic seizures a year or so later. Again, some may appear as paranoid dementia with fantastic, exalted and persecutory delusions, and in the absence of marked physical signs these may remain unrecognised until they reach autopsy. In fact the mental symptoms accompanying general paralysis of the insane may very closely simulate those of almost any other mental disorder. Thus it would appear that in these atypical, yet not so very atypical, cases although their mental state is such as to justify their classification amongst the psychoses, the mental symptoms are in reality due to organic brain disease. Such a conclusion certainly encourages one to search for an organic basis in the mental disorders which are so closely simulated by these atypical cases.

It is not at all difficult to conclude that senile dementia is organic in origin. Almost all cases show marked physical changes, whatever form their mental symptoms may take.

Apart from microcephaly and the congenital cerebral and cranial malformations which lead to amentia, there are other brain lesions which give rise to mental disorders. Amongst these are syphilitic and other types of meningitis, certain cerebral tumours and traumatic lesions. Huntingdon's chorea is a condition in which there are brain changes giving rise to physical signs and symptoms together with marked mental disorder—the disorder is often of the type of a chronic mania. Another interesting type of mental disorder which is due to organic brain disease is that which may follow encephalitis lethargica. This condition exists apart from Parkinsonism and has been particularly observed by pediatricians. Some of the children who were affected in the earlier epidemics of encephalitis lethargica have subsequently shown a complete alteration in all the attributes which go to form character. Where previously they were kind, honest and obedient, they became cruel, untrustworthy and undisciplined. At first sight such a change would appear to be primarily psychical and as such, suitable for treatment by psychotherapy. These children have, however, presented such a difficult problem both to the educational authorities and to those of the juvenile (offenders) courts that it has been found necessary to provide special institutions for them.

Thus in reviewing the foregoing conditions which are due to organic lesions it is seen that the mental symptoms, if considered apart from the physical changes, would often lead to the patients being classified as suffering from disorders to be described in the second group, and even from disorders commonly assumed to be primarily psychical in origin.

Amentia and certain types of mental disorder can be definitely ascribed to congenital defects of, or acquired derangements in, the endocrine organs.

Cretinism in its various degrees produces amentia and mental deficiency. Myxœdema and hyperthyroidism produce different and inconstant types of mental disorder.

In the myxœdematous type there is not infrequently a tendency to mania, but the mental symptoms improve on thyroid treatment so long as it is tolerated. When, after a course of thyroid treatment which has resulted in a cure or in producing improvement in the mental symptoms, the thyroid is withdrawn, there is a relapse in the mental condition. The

myxœdematous type of mental disorder (though not a type which can of itself be distinguished from other forms of mental disorder) may develop in adult life in patients previously cretinoid.

Hyperthyroidism as a cause of mental disorder is receiving special attention, particularly in institutions, where the mild forms of the disorder are being investigated. A very considerable number of the cases treated at the Maudsley Hospital are found to be hyperthyroid.

Some forms of pituitary infantilism are associated with mental deficiency, and there is reason to believe that some forms of mental disorder may be (at any rate in part) due to acquired pituitary defect.

Some of the forms of insanity which come within the scope of the obstetrician and the gynæcologist may be due to endocrine derangements. The attacks commence at times when the endocrine system is put to considerable stress—in pregnancy, the puerperium and the menopause. An interesting observation in this connection is that when these disorders (especially the puerperal) set in in patients who have not a bad heredity and who have not always been on the verge of a mental breakdown, recovery can be prophesied within a fairly constant time (six to nine months). This is suggestive of a gradual recovery from some endocrine upset.

(To be concluded).

Reviews.

General.

The Diabetic Life. By R. D. Lawrence, M.A., M.D. Pp. vi+161. Published by Messrs. J. & A. Churchill, Ltd., London. *Price 7s. 6d. net.*

THIS is a book written as well for the sufferers from diabetes as for their medical advisers. It lays down the principles and methods of practice of the treament of diabetes, and is intended to form a guide, by means of which intelligent patients may prescribe their own diet. The theories and methods of insulin treatment are given and tables are included, giving the amounts of protein, fats and carbohydrates in various foods.

After a comparison of normal and diabetic metabolism, the author gives a chapter on the causation and pathology of the disease, including a short history of the discovery of insulin. Diabetic symptoms and diagnosis, including urine and blood-sugar tests, are treated fully enough and the remainder of the book deals with treatment by means of diet and insulin, the treatment of various sequelæ and complications being included. The "line-ration" scheme is detailed and explained as is the "five-gram" diet scheme and its simplicity should enable a patient to vary his diet within the limits, set by his medical adviser. The book is small and simple, and meets its self-imposed requirements adequately.

Recent Advances of Medicine. By G. E. Beaumont, D.M., F.R.C.P., and E. C. Dodds, Ph.D., M.B., Pp. xvi+364. 2nd edition. Published by Messrs. J. & A. Churchill, Ltd., London. *Price 10s. 6d. net.*

THE second edition follows the first within a few months, the favourable reception of the latter having been well merited. A large number of the chapters have been expanded, new tests and calculations having been added, and we consider this book to be one of real value. The various chapters deal with blood analysis, tests of renal function, glycosuria and diabetes mellitus, pancreatic function, hepatic function, the stomach, the investigations of basal metabolism, some disorders of the endocrine system, the heart, artificial pneumothorax, cutaneous protein tests and desensitisation, the reactions to determine susceptibility to diphtheria and scarlet fever, the diagnosis of enterica affections and investigations of the cerebro-spinal fluid. The book has been compiled with a view to assisting general practitioners, candidates for the higher examinations in medicine, candidates studying for the primary examination for the Fellowship of the Royal College of Surgeons, and laboratory workers and it will be found of great use to all of them.

Health and Psychology of the Child. Edited by ELIZABETH SLOAN CHESSER, M.D. Pp. 302. Published by Messrs. Wm. Heinemann (Medical Books), Ltd., London. *Price 7s. 6d. net.*

TO the world of English medicine, the Psychology of the Child is almost a closed book. Compared with the condition of its study in America, in England it is almost ignored. This is not to say that, in isolated cases, medical men and women in this country have not studied the subject profoundly, but the general public of medical practitioners has certainly studied the subject very little. The book, under review, has been written as an introduction to this most fascinating study and, as such, commands attention. The introduction by the Editress follows a foreword by Sir Maurice Craig, and fifteen other contributors supply the main text of the book. The subjects of the various chapters supply many different points of view, not in every case medical. Viscountess Erleigh has written a short article on "Mothercraft," while the "Value of Training" has been well expounded by Lady Baden-Powell. Dr. H. C. Cameron has provided two chapters, one on "Locke's Thoughts on Education" and one on "Want of Appetite and Refusal of Food in Childhood," while other writers have written on "the value of sunlight to children," "the psychology of the infant," "the subnormal or unstable child," "some psychological aspects of adolescence," and "psychological factors in the religious development of the child." Each subject has been dealt with by a writer, who has large experience of it, and the book makes instructive and interesting reading. It is thoroughly recommended.

Midwifery.

Midwifery. BERKELEY, ANDREWS, and FAIRBAIRN ("Ten Teachers"). Published by Messrs. Arnold. *Price 24s. net.*

THE third edition of this book has been thoroughly revised and brought up to date by the inclusion of recent work on the toxæmias of pregnancy and the consideration at greater length than previously of antenatal treatment and X-ray diagnosis.

It remains a book primarily suited to those whose object is to pass examinations. On those questions, limited in number, where difference of opinion still exists it is not surprising to find a non-committal attitude adopted. Such must inevitably result from collective authorship and perhaps, since the examinee never knows whom he is coming up against at Queen's Square, it is well that it should be so.

The excellent illustrations and general methodical arrangement of the text remain as in former editions.

Erratum.

The author of "Parasitology," reviewed on page 413 of the last number, is A. Mills Kennedy, M.D., Glasgow.

Sport.

Cricket.

THE season just ended has been the most successful enjoyed by the 2nd XI. for some time, and we have at last regained the Inter-Hospital Junior Challenge Cup, which we have not held since 1921. The fixture list has been larger than for many years and of the 22 matches played, 11 have been won, 8 lost, and 3 drawn. These results are very satisfying when one realises that 5 of the first 6 matches were lost, these failures being mainly due to experiments, which must necessarily be made until the form of the players is known. The chief feature of the games has been the consistent all round form of W. H. Dowell, D. M. Calder (the Captain), and E. Britstone, W. A. Corry and W. H. Myburgh have also shown good form on several occasions, whilst E. Fulford, who only came into the side at the end of the season, made a lot of runs. Mention must be made of the sporting spirit of the First XI., who, when they needed a man have always drawn from the weaker members of the Second, and so left us very little weakened. Appended are the averages:—

BOWLING.

	Overs.	Mdns.	Runs.	Wkts.	Avg.
E. Britstone ...	132·1	27	340	34	10
W. H. Dowell ...	137·1	26	406	36	11·3
D. M. Calder ...	282·2	61	779	68	11·5
A. J. D. Lewis ...	50	9	161	13	12·4
W. H. Myburgh ...	93·3	15	335	24	13·9
C. L. Steyn ...	18	5	39	2	19·5
W. D. G. Jones ...	79	8	355	18	19·7
V. R. Preen ...	30·4	4	113	5	22·6

CATCHES.

D. M. Calder	13
G. J. Horton-Parr ...	12
W. H. Dowell	10
W. Hops... ... ... / E. Britstone ... .. / W. D. G. Jones ...	7
A. J. D. Lewis	4
W. A. Corry ... ... / I. S. Rutter .. ... / E. E. Evans	3

BATTING.

	Innings.	Not out.	Runs.	Highest Score.	Avg.
W. H. Dowell ...	13	—	452	104	34·8
D. M. Calder ...	22	2	495	99	24·8
W. A. Corry ...	16	—	353	71	22·1
E. Britstone ...	19	1	281	70	15·6
E. E. Evans ...	6	1	69	24*	13·8
G. J. Horton-Parr ...	12	—	162	67	13·5
W. H. Myburgh ..	14	1	174	62*	13·4
W. Ruzzak ...	16	—	171	36	10·8
H. Richards ...	6	3	31	11*	10·3
C. E. P. Davies ...	12	2	103	29	10·3
W. D. G. Jones ...	15	4	93	23*	8·5
N. S. Plummer ...	6	1	40	26*	8
R. L. Cautley ...	6	2	26	14*	6·5
A. J. D. Lewis ...	7	1	32	12*	5·4
W. Hops ...	10	1	25	7	2·8
The following batted less than 6 times.					
E. Fulford ...	4	2	173	104*	86·5
I. S. Rutter ...	4	3	47	28*	47
V. R. Preen ...	3	—	124	57	41·3
E. C. Till ...	3	—	40	36	13·3
A. Isaacs ...	5	2	20	9*	6·7

*Signifies not out.

Hospital Information, etc.

Pass List.

University of London.

Second (M.B., B.S.) Examination for Medical Degrees

July, 1925.

E. Bellamy.
F. E. Camps.
G. J. Clarke.
C. E. P. Davies.
R. H. Q. Edwards.
R. Glanvill.
J. C. Heather.
J. M. Johnstone.
H. G. McGregor.
E. R. R. Mellon.
H. Richards.
J. B. Robinson.
W. K. Schnarr.
S. Shone.

First (M.B., B.S.) Examination for Medical Degrees.

July, 1925.

W. H. Allan.
F. W. Chippindale.
A. W. G. Clarke.
W. J. Ferguson.
O. Ive.
A. N. Jones.
D. T. Jones.
F. J. Napier.
P. B. Peckham.
J. R. F. Popplewell.
P. V. Reading.
L. K. Robson.
C. K. Simpson.
G. P. B. Whitwell.

Notices.

The Fourth Years Prize in Dental Subjects has been awarded to Mr. R. V. Bradlaw.

A Certificate has been awarded to Mr. M. Gierson.

Rugby Football Club

The Annual General Summer Meeting of the Rugby Football Club will be held in the Physiological Theatre on Monday next, August 17th, at 4.10 p.m.

The Vice-President, F. J. Steward, Esq., M.S., will be in the Chair.

All Rugby Footballers are asked to attend the Meeting.

Change of Address.

Donald Vaughan, M.R.C.S., L.R.C.P., 2, Vicarage Road, Cromer.

J. W. Sandoe, M.D., B.S. (retired), Powislaird, Crown Hill, Devon.

J. Urban Human, M.R.C.S., L.R.C.P., 1, Hanover Square, London, W.1.

John S. Dick, L.D.S., 4, Clavering Road, South Wanstead.

Birth.

UPCOTT-GILL.—On July 25th, 1925, at Cinderford, Gloucestershire, to Erica (née Potter), wife of Bernard C. Upcott-Gill—a son.

Marriages.

REYNOLDS—STEELE.—On July 22nd, 1925, at St. Paul's, Knightsbridge, Captain W. L. E. Reynolds, M.C., Royal Army Medical Corps, to Margaret Joan Pattison, only daughter of Mr. and Mrs. W. R. Steele, of Farnham, Surrey.

ANNESLEY—CURTIS.—On Saturday, August 8th, 1925, at St. Michaels Church, Sandhurst, by the Rev. H. F. Lewis, Vicar of Horley, assisted by the Rev. Canon Newhouse, Rector of the Parish, Captain F. Dighton Annesley, M.C., Royal Army Medical Corps, only son of Mr. and Mrs. George Dighton Annesley, of Tunbridge Wells, to Joan Elizabeth, second daughter of Mr. and Mrs. John J. Curtis, of Sunnybrook, Sandhurst.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *August 29th, 1925.* *Number 969*

PASSIM

THE GAZETTE is, from necessity, an impersonal publication. It is the undying child of an ever-varying Committee and owns relationship to no single individual, except its founder of glorious memory. It has many slaves but no master, and its tone is one of thoughtful restraint. Under the greatest of provocation, it expresses itself moderately and without bitterness, as becomes a thing, impersonal and above petty self-interests. Occasionally in the Correspondence columns will be found a more personal note, for these columns are open to the world and are in no respect attributable to the GAZETTE, but elsewhere calm moderation reigns. Sometimes an Editor,—for even so unmortal a paper must have Editors,—stung by some item of his daily mail, writes feelingly in "Passim," but his words are never read by the great company of GAZETTE readers. The Censor, a being untouched by the throbbing passions of the editorial soul, rules through the animated lines with the blood-red ink of a stoney heart and "Passim" appears, as usual, heavy with lifelessness. The Powers that rule the destinies of the GAZETTE meet now and then to while away an hour and pass the "minutes." "Such and such shall be done" they say, and look coldly at the Editor. Later, in the Editorial Office, the Editor sits, carrying out their commands, while the faces of dead and gone Editors peer at him hazily from the Editorial walls and smile knowingly and say "Boo!" To its readers the GAZETTE has a familiar monotony, reflecting the unending years of generations of student days, but behind it all is a very living being, writhing in the torments of suppressed emotions. This being, the Editor, is gradually reduced to a state of mental depression that renders his post intolerable. The strong survive longer than the weak, but even the strongest succumb before forty numbers have appeared. Jaded and suppressed, each leaves the office with only one hope, that in time he may be able to lose "We, the Editor" and regain his old self of "I, the Man." It is a long voyage of discovery that awaits each one at the end of his tour of Office and yet others are always ready to take his place. Full of fine thoughts and enthusiasms they disguise themselves as "We" almost light-heartedly and, like the novice, entering on his first steps in crime, they are unaware of the awful hold that that malignant thing will take of them. Sarcasm and abuse will rend them almost weekly and must be

ignored, while hope of praise, though buoying them up at first, will never be fulfilled. For praise is sent by a faulty telepathy and does not reach its object, while censure arrives with a shattering regularity that gives the only comforting use of that sheltering "We."

Why then do more and yet more Editors arrive? It is for the reason given by the lunatic who hammered on his head with a mallet—the joy and relief that comes on ceasing.

THIS has been a sad month for Guy's, many of her sons having passed away. At Bristol, the dreadfully tragic death of Dr. Walter Carless Swayne has brought grief to his many friends, while on August 13th Dr. R. M. H. Randall died at Beckenham. Captain of the Fifteen during the season 1883—4, Dr. Randall has always encouraged Guy's Rugger by his presence at their matches and was undoubtedly one of its most enthusiastic supporters.

Earlier in the month Dr. Cuthbert Warner of Woodford Green, Essex, died and it is now learned that he has remembered his old Hospital in his will, by leaving one hundred pounds to Guy's.

It is hoped that appreciations of the lives of these old Guy's men will appear in the next number.

Undertakers.

NUMEROUS generations of Guy's men have always had amongst their numbers a "fœtus," so the late Mr. Golding-Bird told me. I replied that those of my generation were still more fortunate in counting among them an undertaker—a good one, too. He was what popular imagination conjures up as one typical of that craft; a quiet, sombre man, dressed in shabby black and rather uncertain as regards his linen. I believe he was quite a good fellow, but he was always lonely and apart. He possessed a peculiarity which I find common to undertakers—a business-like glint in the eyes as though summing up one's exact height and bulk; a glance one expected to be followed by a quick withdrawal of a foot rule from the pocket. I regret now that I did not know him better, but like others I let many golden opportunities slip when I was a student. Since then I have, I hope, done better for myself; indeed, I can claim many undertakers as my personal friends. From this long and wide acquaintanceship I can confidentially state that the imaginary undertaker no more resembles the real one than the stage Irishman does the actual Hibernian; indeed, one of my local friends in the craft is absolutely a jolly dog, and people say that it is a pleasure to be buried by him, though I notice he is equally genial over a cremation.

This profession, like that of gravediggers, naturally lends itself to philosophy, and not seldom I have found also to humour. In the town I am writing from, the craft have formed a close combine to keep up the price of interments. I was expostulating with one of them over this, and he said, "We are but following the milkmen, and rightly, too; for as milk may be regarded as a symbol of our entrance into this world, so the emblems of death and mortality mark our exit, and both must be closely guarded."

One venerable and respected old fellow I happened on at a seaside resort. He was standing by and handling a stone drinking trough for cattle. After greeting me kindly he patted the stone with his hand and said, "What a lovely sarcophagus it would make." His pleasure lay in his craft, and it was no surprise when he told me that business, not pleasure, brought him to the seaside; he had in fact been busy burying an admiral and had interred him snug and dry back in the hills. At the funeral he had been mistaken by someone for the doctor. "No, sir," he plied, "but I am the dead man's next best friend—I am the undertaker."

Shortly after he lost his beloved son, and I was amazed to observe how his personal grief was swallowed up by his professional interest in the obsequies.

A. P. A.

An Organic Basis for Insanity.

By R. GYWN WILLIAMS.

A Paper read before the Physical Society, and awarded one of the Society's Prizes.

(*Concluded.*)

Few can deny that the insanity which may accompany epilepsy has an organic basis. Whether epilepsy be considered as due to an hereditary defect in the nervous system; to a susceptibility to certain alimentary toxins, or to an unstable vaso-motor system is not a question at present under discussion. The type of mental disorder which may be present varies considerably, but the epileptic temperament is fairly constant. Simple imbecility is not infrequently due to epilepsy, whilst epileptic insanity may take the form of simple dementia; dementia of a slightly paranoid type; non-systematised delusional insanity, or manic-depressive insanity. If these mental symptoms appeared apart from epilepsy, they would commonly be considered as primarily psychical in origin.

Metabolic upsets such as uræmia, gout, alcoholic, toxic, and other poisonings produce mental disorders. Uræmia is a common cause of acute mania, and a considerable proportion of cases of acute mania kept under observation at the infirmaries turn out to be uræmic.

Three other types of mental disorder will be considered:

(1) The manic-depressive psychoses;
(2) Dementia præcox, and
(3) Delusional insanities.

(1) *Manic depressives.*

Manic depressives appear to have an organic basis for their condition, though the exact localisation of the organ or organs at fault is a matter of great difficulty, and one which demands careful research. The onset of the symptoms is usually insidious, though sometimes it may be fairly acute and may follow external stresses. The heredity is generally bad. The symptoms show a very marked periodicity, a phenomenon similar to that observed in Graves's disease and Addison's anæmia; and moreover this periodicity does not appear to be affected appreciably by environmental factors. For example: a female patient may first be seen in a state of mania, in which she may be noisy, sleepless, violent, and dirty in her habits. Her mania will gradually subside; she will take an increasing interest in her appearance, and her conversation will approximate more and more to that of the normal, until the depression sets in. This will occur rather insidiously. First she will be found to write fewer letters; her conversation will become less buoyant, and her appearance more unkempt. This will progress until she becomes completely disinterested in her surroundings; mute, inaccessible and possibly requiring to be fed artificially. Gradual improvement will occur until the patient is almost normal, and then the maniacal phase will commence. It is remarkable that this cycle is not upset by environmental disturbances. Thus, if the patient hears of the death of a near relative or of her failure to be discharged from the hospital, these events do not produce any alteration in the form of the cycle, though they may precipitate the onset of mania or of depression—whether mania or depression is precipitated would depend not upon the nature of the news, but upon the normal progress of the cycle.

Acccompanying the mental symptoms which characterise the two states are changes in the blood pressure and in general physical condition. The changes are from a high blood pressure in the depressed states to a low blood pressure in the excited states. The low blood pressure in the excited states is not so constant as the high pressure in the depressed states. In simple depression the blood pressure is almost always high, the exceptional cases being those in which there is severe myocardial failure or partial heart block, unassociated with valvular lesions. The extent of the depression in these cases is proportional to the degree of cardiac failure; i.e., an individual case is much less depressed at times when the extra systoles are few and when his peripheral circulation is relatively good, than he is when his pulse is very irregular in rate and volume and his extremities cyanosed. Amongst the certified, those with mitral lesions tend to be depressed and hypochondriacal, and those with aortic lesions, excited.

(2) *Dementia præcox.*

Dementia præcox may appear in certain early cases to be due to a purely psychical disturbance or to be the result of some sociological injustice. But the more fully developed cases, when viewed in the light of modern medicine and physiology, suggest that there are profound organic changes in this condition. There are three main facts which suggest an organic basis for dementia præcox.

1. It is an almost invariable rule that cases of dementia præcox when affected by some acute intercurrent febrile illness lose their mental symptoms and become almost normal.

2. Cases of dementia præcox show marked instability: they are sometimes vagotonic, sometimes sympatheticotonic and they are frequently subject to such conditions as Effort's syndrome and Raynaud's disease.

3. Definite changes are found post-mortem in such organs as the testicles and ovaries, and probably the pituitary.

The improvement in the mental state which occurs during the course of an acute illness such as typhoid or pneumonia is almost dramatic. Catatonic cases of dementia præcox who may not have spoken a word for three months will, as soon as their temperature is considerably raised, begin to talk more or less sensibly. In favourable cases the mental state becomes normal, and the improvement may be maintained for two or three months after the conclusion of the illness. There is nearly always a relapse after that time, though some cases have been discharged and are known to have remained well for years. This phenomenon appears almost impossible of explanation except on organic grounds, e.g., the rearrangement of the endocrine balance which occurs as a result of the fever stimulating the defective organs or inhibiting the opponents.

It is my opinion that in well marked cases of dementia præcox (seeing the bad prognosis implied) an acute fever should be induced as a form of treatment. This is not a suitable occasion for commenting upon the success or otherwise of the malarial treatment of general paralysis; but as benign tertian malaria is probably the most easily controlled fever at our disposal, it seems that the indications for the use of malaria in dementia præcox are greater than those for its use in general paralysis. For while it is admitted that the prognosis as to life there is bad and that of dementia præcox good, the chances of complete physical recovery in the former are, from the nature of the disease, extremely remote, whilst in the latter they are distinctly favourable. This, however, is a digression.

Vagotonia and sympatheticotonia are conditions at present very difficult to understand, except in a vague theoretical way. Vagotonia implies an excessive action of the parasympathetic system (or automatic of Eppinger and Hess) and sympatheticotonia of the sympathetic system. The autonomic system is regarded as anabolic and the sympathetic as katabolic in action. In sympatheticotonia the anabolic glands and the intestines are inhibited and the blood is concentrated in the muscles and brain as for defence.

Clinically, vagotonia appears with small pupils, slow pulse, sweating skin, dilated capillaries and some gastro-intestinal disturbance with hyperchlorhydria and constipation due to dilation of the bowel and contraction of the sphincters. These symptoms are increased by injections of pilocarpine. In sympatheticotonics one finds dilated pupils, contracted capillaries and a short, simple reaction time. Adrenalin causes an increase in these signs. Although the tests for these conditions are not yet thoroughly reliable, there is little doubt that there are two such conditions and that they are mutually antagonistic.

One or other of these conditions is frequently found in cases of dementia præcox, the same case showing at one time vagotonia and at another sympatheticotonia. The alternations between the two states seem to be intimately related to testicular and ovarian function.

Sir Frederick Mott was so impressed with the post-mortem changes which he found in the testicles and ovaries that he considered dementia præcox to be due to an inborn defect in the testicles and ovaries. Whether or not he still holds these views I do not know. At any rate, his work certainly shows that these organs are involved in dementia præcox.

(3) *Delusional Insanity.*

With regard to delusional insanity of the non-systematised type, associated as it so often is with different forms of hypochondriasis, it is not at all difficult to realise that there is usually or always an organic basis for the delusions or for the hallucinations upon which the delusions are built. A man who is deluded to the effect that his food is being poisoned will probably have some considerable

gastro-intestinal derangement and pyorrhœa—the evil taste in the mouth due to the latter condition being ascribed to poison. The following is an interesting example of the relationship between actual disease and visceral hallucinations:—An old man in a very low state of health was suffering from senile dementia marked by persecutory delusions. He used to tell me that he had been stabbed in the chest, just above the right costal margin in the nipple line, and that the injury was still being tampered with by the nurses. I glanced at his chest, but not finding any sign of a scar I paid no further heed to his story. Subsequently I had occasion to examine him more thoroughly and then I found that he had a hard localised enlargement of his liver. At post-mortem, some weeks later, he was found to have a large secondary growth in his liver. It is probable that the origin of the delusion of the stabbing was the growth of the the liver.

Another interesting case is the following:—Patient was admitted in 1901 as a delusional insanity in an excited and violent state. Subsequently he was diagnosed as a dementia præcox. He had audiary hallucinations upon which were based delusions. The delusions were childishly exalted and non-systematised. Gradually his auditory hallucinations gave place to visceral, and as long ago as 1903 he had delusions that he was getting thinner because his boots were too big for him and that the joints of his feet were coming undone. Throughout the war he did a tremendous amount of work as a bootmaker, this work being continued until six months ago when, as he was unable to hold the boot-making tools and had had two attacks of dyspnœa, he refrained from working. Thereafter he was always to be found standing or walking about (walking with a wide base). He had delusions that he was falling to pieces and that his head would drop off. About a week ago he had an attack of severe dyspnœa. He was put to bed and subsequently examined. There were signs of slight myocardial degeneration. The urine was normal; the systolic blood pressure 135, and the blood urea ·4 grms. per 1,000. He was found to have extreme muscular wasting of the trunk and both upper and lower extremities, including the intrinsic muscles of the hand. There were some fibrillary twitchings of the intercostals, deltoids and biceps. The tendon reflexes in the upper extremities were very brisk; those of the lower limbs absent. The plantar responses were flexor. No areas of anæsthesia were detected, though it is probable that many of his visceral hallucinations were due to paræsthesiæ. It is probable that he has a slowly progressive form of muscular atrophy. Now, though I do not suggest that his mental condition was from the first dependent upon the muscular atrophy, I am convinced that the hypochondriacal delusions, which had completely supplanted his early exaltation, had an organic basis.

Systematised delusional insanity (which may for the purposes of this paper be regarded as paranoia) is not a very common condition. On account of its insidious onset, the difficulty of ascertaining the delusions, the relatively slight disorder of conduct and the absence of dementia (theoretically even in the last stage there is no dementia) the condition has been regarded as a primary disorder of the intellect. This view is no longer commonly held by psychiatrists. The factors which favour an organic basis even for paranoia are:

(1) The frequency of an insane heredity;
(2) The homosexual malpractices which are a fairly constant feature of these cases;
(3) The presence of the paranoid state in other definitely organic insanities general paralysis and alcoholism.

Difficult as paranoia is to explain on an organic basis (as it is on any other basis) there is something to be said for its classification amongst the organic insanities.

Now, in investigating the causes of insanity there are four factors which at present require special consideration:—

(1) Endocrine;
(2) Metabolic;
(3) Vascular and vasomotor;
(4) Toxic.

The first passes insensibly into the second; the third is closely linked up with the first, whilst the fourth may be a factor in each of the first three.

Investigation of the endocrine disorders is rendered difficult owing to the lack of uniformity and to the unreliability of the tests at present in use. Nevertheless, if the existing tests were systematically employed on a large scale: modifications made and certain new tests devised, a great deal might be learned of endocrine function. Biochemical estimations are

absolutely essential for the understanding of endocrine, metabolic and the vasomotor disorders. Intensive searching for toxic foci, followed by the removal of doubtfully septic teeth or tonsils is a procedure which tends to be overdone. Toxic causes, however, may play a big part in producing endocrine, metabolic and vasomotor disturbances.

When a patient has, after the necessary period of observation, been diagnosed as, say, dementia præcox, his investigation should not then be regarded as complete and leaving nothing further to do than to record his progress and the nature of his most severe and intercurrent diseases. On the contrary, the actual diagnosing of these cases should be regarded as comparable to deciding whether a patient in the Front Surgery should go to Addison, the Throat Department, or to "'Pat" and "Sam."

When a patient has been diagnosed, investigations such as the following should be undertaken in addition to a thorough medical and neurological examination:—

(1) Complete blood analysis;
(2) Various tests for endocrine function;
(3) Renal and hepatic efficiency tests;
(4) Tests meals;
(5) Electrical reactions;
(6) Radiography;
(7) Examination of cerebro-spinal fluid;
(8) Pathological examinations.

It appears to me that to search for the causes of insanity by means of psycho-analysis of border line cases rather than by applying the methods of modern medicine to the investigation of the certified lunatic, is about as reasonable as searching for renal casts in the supernatant fluid rather than in the centrifugalised deposit.

Correspondence.

The late Dr. Lloyd Tuckey.

SIR,—Some of us who were students at Guy's in the Eighties were interested in the practice of hypnotism and received demonstrations and instruction from Dr. Lloyd Tuckey and Dr. Milne Bramwell. I well remember Gowland Hopkins, Hazell, O'Neill and myself being initiated into the mystery of hypnotism at the invitation of Dr. Lloyd Tuckey. We arrived at his charming house in Green Street, Park Lane, dressed in our best clothes, clean and smart. Our host rather surprised us as we had preconceived notions of what a hypnotist should look like; Lloyd Tuckey had the air and manner of a well-to-do country gentleman, and received us with as much courtesy and consideration as if we had been medical baronets.

He was good enough to introduce us to his patients, a drunken clergyman, a lady suffering from persistent hiccough (mentioned in his book), and a man he was treating for violent gastic crises (locomotor ataxy).

From that introduction sprang up a long and close friendship between himself and me, and he was very keen on my specialising on his work. Through his influence I became interested in psychical research and joined the Society of which he was a founder. His practice was never a large one as he had no commercial acumen and lacked the least element of quackery—indeed he was almost apologetic to patients as regards his technique. His success was, however, great, as the record of cases in his book show, and he was so honest and truthful a man that they may be fully accepted. I often wonder if modern methods of psycho-therapeutic treatment show as good results?

Dr. Milne Bramwell, whom I also knew was a man of different stamp, more imperious and commanding. They used to interchange patients as the one would succeed where the other failed, according to the type of man or woman requiring treatment.

I cannot conceal my disappointment at the review of the Seventh Edition of his book which appeared in the Guy's Hospital GAZETTE, which I considered to be ignorant and lacking in consideration for one who had been a pioneer in scientific psychotherapy, but I suppose Freud alone appeals to the younger generation!

I have felt it my duty to write this letter as many of the old Guy's men were so kindly received and instructed by my old friend.—Yours faithfully,

A. PERCY ALLAN.

Croydon.

August 13th, 1925.

Dental Notes.

Oral Sepsis and Systemic Disease.

Clinical Lecture by ARTHUR BULLEID, L.R.C.P., M.R.C.S., L.D.S.

GENTLEMEN,—I make no apology for bringing this subject before you to-day, because, though it is now well established that oral sepsis does play a very important part in relation to systemic disease, yet it is a subject that is constantly brought to our attention in our every day work. I would, however, stress one point at the outset and that is that we must not let our enthusiasm for eradicating oral sepsis run away with our sense of proportion.

Oral sepsis is only one factor, though a most important one, and it must not be considered the only one as a cause of disease in other parts of the body. There are certain diseases which are no doubt caused entirely by dental sepsis, but there are also a great number in which dental sepsis plays only a secondary or small part.

I would also point out another fact and that is that just because one line of treatment brings about marked alleviation or even cure of a general condition it does not necessarily follow that the cause on which the treatment is based is the only one at the root of the pathological condition. It is rarely that only one line of treatment is adopted in attempting to cure an illness and it is therefore sometimes quite difficult to establish the relation of the various methods employed.

I sound this note of warning because it is not uncommon for each specialist in a particular branch of medicine or surgery to consider his speciality as being the most important and often many good parts of our anatomy are removed without just cause.

Oral sepsis is of two kinds—the hidden and the apparent—and both as a rule are bad, though it is sometimes difficult to draw hard and fast rules as to which is the more detrimental from the general health point of view.

To Dr. Hunter belongs the real credit for pointing out the vast importance of oral sepsis as a factor in the cause of systemic diseases. He pointed out how common it was, how often overlooked, and how grave in its effects. He stated that the oral sepsis to which he refers is not confined to just one diseased condition of the mouth, but includes a whole series of local inflammatory and suppurative conditions met with in the mouth and adjacent parts.

Thus, in the term oral sepsis are included all forms of gingivitis, infective periodontitis, all septic diseases of the tooth pulp, whether inflammatory, suppurative or gangrenous, and dental caries, chiefly after destruction of the crown of a tooth, when a septic root is left in the alveolar process.

Now when once oral sepsis is established the actual bacterial flora of the mouth changes. These changes probably consist not only in an actual numerical increase in the number of mouth bacteria present, but also in a change in their virulence, so that certain of those organisms which are normally of low virulence or possibly non-pathogenic, have their toxicity markedly increased.

Normally, the mouth is a good incubator, but in inflammatory conditions of the mucosa a proportion of the inflammatory products lead to stagnation, chiefly round teeth, and in these stagnation areas the bacteria find a rich pabulum on which to increase, and so the inflammatory condition is further kept up. As the inflammation increases the organisms invade the actual tissues and then both they and their toxins are carried to other parts of the body by various channels which we will deal with later.

Against this mass attack the subject has certain means of protection, which may, for simplicity, be divided into two great groups, local and constitutional. The local, or primary, resistance in the mouth is (1) the positive chemiotactile action of the saliva plus its well-known flushing action, which carries down desquamated epithelium on which bacteria are adherent to be destroyed by the gastric juice, (2) an intact epithelial covering, and (3) the mutual antagonism of certain mouth organisms. In the stomach the antiseptic action of the gastric juice kills a certain number of swallowed micro-organisms, though this power is

altered or even held entirely in abeyance after long continued doses of the organisms from the mouth.

The constitutional, or secondary, resistance is that resistance of the individual to infection and naturally varies in each case. In some cases it is extremely high, whilst in others it is a very weak barrier indeed.

Now let us examine in detail the actual diseases that are found to be associated with oral sepsis. The first great group may be termed local infections and are associated with diseases of the mouth and upper respiratory tract. Sepsis from the mouth may spread backwards and infect tissues with which it comes in contact. Thus infection of the tonsils may be directly the result of this spread of mouth sepsis backwards, and, if infection should spread further, then the pharynx or larynx may be affected, giving rise to pharyngitis and laryngitis respectively. Glossitis is nearly always the direct result of oral sepsis and even in the condition known as leucoplakia, which is usually put down to syphilis, alcohol, or excessive smoking, there is practically always evidence of marked oral sepsis. Otitis may be started by direct extension of the inflammation down the Eustachian tube. There are many other conditions—such as œdema of the glottis, post-pharyngeal abscesses, empyema of the antrum, and certain eye lesions—which are now definitely proved to be due to sepsis affecting the various structures by virtue of the continuity of parts; but the few I have cited are sufficient to show the connection.

There is now very little doubt that one at least of the causes of the infection of the tongue or buccal mucus surface of the cheek, which become the seat of epithelioma, is the infection of the epithelium by chronic dental sepsis. It must, indeed, be a very rare thing to find an epithelioma linguæ which is not associated with oral sepsis of some form or other.

The important fact to be recognised is that one or all of these various conditions (including caries) are septic in nature and produced by pus forming organisms and that the question of the effects in any one case is merely a question of individual resistance. That the effects are not even more common than they are is due partly to the fact that the mucosa of the mouth is remarkably resistant to infection. The infection, however, in connection with diseased teeth is of a particularly violent character—in fact much more so than that connected with infection of the soft parts only.

The second great group comprises all those diseases which are the result of remote septic infection. Now there are certain channels by which these septic infections can be brought about—namely, the lymphatics, veins, by actually swallowing the septic material, or by inhaling it. Infection of the glands, which may be either simple, inflammatory or suppurative, is practically always due to the direct or indirect influence of bacteria and so in ascertaining the cause of glandular infection the condition of the tissues drained by the glands must be investigated. Chronically enlarged glands in the neck fall into two classes. Those due to pre-existing causes such as the exanthemata and catarrhal conditions of mouth or nose form the larger group, while in the second group are the exciting causes which are septic conditions of the associated parts, though it is sometimes difficult to say definitely which tissue or organ is the source of the infection.

Chronically enlarged glands, from whatever cause they may have arisen, are in a state of lowered resistance and thus are prone to become tuberculous. How the actual tubercle bacilli reach the gland is not absolutely certain, but probably the intestine and tonsils are two of the paths. The teeth cannot be considered as a path except in exceptional circumstances. It is important to diagnose carefully the condition, so that the source of infection if possible can be eradicated. If such is done even tuberculous glands resolve in a remarkable way and so the risk of operation is avoided.

The evidence as to the relationship of gastric infections and oral sepsis is now well established and next to the oral condition itself these gastric effects are probably the most common sequelæ. The swallowing of septic material into the stomach gives rise in time to a condition, which was aptly named by Dr. Hunter "septic gastritis." A number of people would put a condition of dyspepsia down as being a purely mechanical one, due to poor mastication from an inefficient natural denture, which puts an increased amount of work on the stomach; some might say that bad teeth denote bad health, not that they cause it, but the most logical thing to say is that the dyspepsia is the result of continued swallowing of septic material from the mouth, whereby the gastric mucosa becomes at first catarrhal and later septic.

Eventually the sepsis may lead to even deeper seated changes, which are always the result of chronic catarrh—namely, atrophy of

the secreting structures, with increase of fibrous tissue. Therefore it is possible to visualise a simple catarrhal gastritis leading to gastric ulcer or even gastric carcinoma, although it must not be forgotten that gastric ulcer may be present when there is no marked evidence of oral sepsis. What one would stress is that, if present, it exercises a marked influence over the course of the ulcer and that little improvement takes place till it is treated.

If the oral infection is kept up for years it is conceivable that the remainder of the intestine can become infected and such conditions as duodenitis, enteritis, colitis and appendicitis occur.

By the inhalation of septic material from the mouth certain chest conditions are either occasioned or, if already present, often increased in severity. It is no rare occurrence for a physician to send a patient with chronic bronchitis to the dental surgeon to have oral sepsis eradicated, in order that subsequent chest treatment may have better results.

The third great group is due to toxic absorption and it is in this group that the question of hidden dental sepsis is so important. I think that the most common pathological condition attributable to toxic absorption is the so-called "debility"—the feeling of being generally below par, the sallow, unhealthy complexion. Of course, it must not be thought that "debility" is only caused by oral sepsis, because there are many other simple things, such as constipation, which will give the same appearance—but it is one of the commonest causes.

Other well-known toxic conditions are the so-called "infective arthritis," toxic neuritis, and so on. In these conditions the toxins secreted by the organisms concerned show a particular affinity for some particular tissue or organ. Thus in the so-called rheumatoid arthritis, in which the infection at first attacks the peri-articular structures, particularly of the joints of the hands (but not as a rule the terminal joints) and the feet, the infection as a rule can be traced back to its source in the mouth. It is particularly in this type of case that the chronic apical bone sepsis is of such importance and it is, therefore, of almost paramount importance to skiagraph the teeth and jaws.

Neuritis is often commonly associated with oral sepsis and the results of such sepsis are often very marked indeed. In certain skin lesions, such as infective urticaria, purpura, erythema multiforme and lupus erythematosus, the cause of the infective condition is often the oral sepsis and eradication of the sepsis brings about marked improvement, sometimes cure. It is in connection with such lesions as the ones mentioned that the importance of taking cultures from samples of extracted teeth, tonsils, etc., is revealed, because the eradication of the sepsis is often not sufficient to completely desensitize the patient and then vaccination will complete the process. One looks foolish afterwards if vaccination is required to have to own that the source from which the preparation of the vaccine has to be made has been thrown away.

Many blood diseases have their part associated with oral sepsis; of these the so-called septic anæmias are constantly found in persons whose mouths clinically, bacteriologically and radiographically are mere vessels for toxin production. The pathology of pernicious anæmia is still far from clear, but the work of Dr. Hurst recently has helped to elucidate the pathology. I do not intend here to go into that work, but would simply state that he lays a good deal of stress on the presence and eradication of the oral sepsis so often found associated with the condition. Dr. Hunter maintained that the oral sepsis is a predisposing cause only, that it is unable to produce the disease, but acts by inducing an unhealthy condition of the stomach and intestines, which favours the contraction of the specific hæmolytic infection responsible for the disease and which favours its continuance after its contraction. Two points which have been advanced against Hunter's views are (1) the extreme prevalance of oral sepsis and the relative infrequency of pernicious anæmia; and (2) that pernicious anæmia can be present when there is no oral sepsis. Whether one agrees entirely with Hunter's views or not, the association of oral sepsis and pernicious anæmia is very common.

Should the actual organisms get into the blood stream and be carried to other more remote tissues then infection of these tissues will take place. For instance, the condition known as malignant endocarditis may be due to micro-organisms in the mouth getting into the blood stream and being taken to the valves of the heart, forming there what are known as

vegetations. The actual original lesions from which the organism enters the blood stream may be so slight as to escape observation, or it may be very obvious.

To turn to the last group of cases which I wish to bring to your attention—the mental cases.

It is becoming increasingly evident that in asylums much more attention is being paid to sepsis as one of the causes or contributing factors in many types of mental disorders. It is now almost a routine measure to eradicate sepsis wherever it may be found in mental cases—and one of the commonest sites is the mouth.

Of course, one does not say that a cure is effected by removal of the sepsis, though some startling results have been recorded, but it is certain that certain lines of treatment have much better results when the sepsis has been eradicated. One does not allow a patient to suck a foul ulcer on the arm, for instance, but this is just what is being done in the mouth when one thinks of it; and when one thinks that this periodic sucking may go on for years, it would be strange if no ill effects resulted.

I think in conclusion I cannot do better than quote Colyer's words:—

"The somewhat bizarre nature of the effects that have been attributed to oral sepsis may at first sight make the relationship appear improbable, overstated and even ridiculous; but when once the principles that underlie the subject have been grasped it will be realised that the conclusions are a necessary outcome. In all diseases there are always two factors at least—the seed and the soil. The seed varies; the soil varies. Never are the two the same; never is the relation repeated. This is why variation in disease occurs and in no two persons does it run a precisely similar course. Oral sepsis, let it be repeated, is but a comprehensive term to include various forms of septic conditions in the mouth; it is not one disease. The germs causing the sepsis vary and so the germs passing into the body and the toxin absorbed produce different results in different people. It cannot be said precisely why germs of a particular kind entering one body produce a septicæmia and in another an infective endocarditis, or why a toxin in one will produce anæmia and in another a neuritis. That such is the case seems, however, comparatively certain and one must rest content for the moment with the fact and believe that the future will unfold more of the reason why."

Malt and Hops.

BY AN OLD RESIDENT.

AT the time when I was holding Resident Appointments at Guy's, there used to be supplied to the Resident Officers as part of their board, for drinking, casks of beer of which the name of the brewer never transpired, but it was a tradition handed down, that it was not good enough for the Resident Officers to drink, but must be kept for the policemen and others who brought cases up to the Hospital, night porters, etc.

In my own opinion it was very sound and palatable, and much more to my taste than the more expensive beer which was bought for their own use out of the money subscribed by those who were on duty. It was not "the thing" to like this hospital beer, but to leave it, as I said, for the lower officials. Personally, I very much preferred it to the "Bass." It was a thought more suggestive of malt in its flavour, and perhaps a trifle sweeter, and seemed to hold more of what may be called "extractives" in its composition.

It was free, however, from that clinging and persistent bitterness which the other, and more popular, brewery left on the palate, so strongly resembling the bitterness of quassia, and other medicinal tonics. The tradition, however, not to drink any beer but Bass was strictly kept and handed on for others to observe in like manner.

Any man was at liberty to follow his own choice, but there was no foundation for this absurd prejudice, beyond mere tradition. Indeed, I used to think that the weight of evidence would have been on the other side.

In all communities, which have existed for some time, we can generally find that some fungoid nonsense has crept into a similar un-

written law, for in my schoolboy days, a certain pudding was taboo and it was more than any boy's comfort was worth to touch the forbidden dish, unless he was a good boxer.

At Guy's, as far as I knew, I was the only one who drank this policeman's beer, but then I was older, and liked my own way. The other men abstained because they said they preferred Bass. It may be that they had got, by constant use, a liking to the taste, and drank it from preference for its thin bitter flavour.

During the later years of my stay in London I had the good fortune to lodge at the home of a man who worked for one of the large London brewery firms, whose name one so often saw on boards on public-house fronts, explaining that "So and So's Entire only was sold." It was a tied house. The lifelong experience of this man often yielded me information which was very interesting.

One year there was much alarm expressed in the daily newspapers as to whether the hop disease, which was appearing, would progress to any results likely to be disastrous to the hop trade. I remember asking my landlord what would be done by his firm in case there was such extensive destruction of the hop vines as to reduce the amount of hops to an insufficient amount for brewing purposes. His answer was prompt and definite. He said, "It would matter very little to us if there was never another hop grown," afterwards adding, "there are many pleasant bitters grown besides hops, such as camomiles, which make an excellent bitter."

I spent one of my last vacations at one of our largest and most popular seaside resorts on the south coast, and for the sake of pleasant company, being alone, I lodged at one of the large comfortable boarding houses in the place.

There used to come and sit next to me a man who lived a few miles out, but whose office was in the town. He took his lunch in the town. He explained that he represented, as owner, a brewing firm, whose name was familiar to the public. A coaching excursion was being got up among the boarders and, as I sat at lunch one day, I was asked if I would join the party. My brewing friend said how much he would like to join us, if he might be permitted, as the proposed route was a most enjoyable one. So he went. During our drive the sky grew black and overcast, so I proposed that we should stop at the next village we came to, and shelter until the clouds passed over. We found there quite a nice clean hotel, evidently intended as a stopping place for trippers to see the district. As we entered the rather large hall, I saw large framed cardboard panels showing that it belonged to the "firm" of my friend, so I said to him that I should have great pleasure in drinking his health in beer of his own brewing. He declined, but said he would pay for drinks for others with pleasure. "How's that?" I said. "You are surely not an abstainer, as you refuse to drink your own beer?" "My friend," he said, "you misunderstand me; I said we were brewers." "So I understand," I replied, "but you don't wish me to believe that you put any of those things into your beer, otherwise than pure malt and hops, which render it, in your opinion, unfit for consumption." "We brew to sell," he replied, "not to drink, and if we can make our beer cheaper to produce, without spoiling its appearance or taste, we should not hesitate to do it."

On my narrating this conversation to a friend afterwards, he said that if anyone approached one of our large brewing firms, and proved to them that by a certain different method or improved process, or the use of ingredients which did not interfere with the taste or appearance of their ale, he would be given the post of chief brewer at once. Let the truth or the explanation be what it may, the facts are as I have stated them.

I don't know for what purpose hops are now grown, but it certainly is not only for brewing purposes, as the quantity we ripen is the merest fraction of what would be required; and good and bad seasons make little or no difference. I am told by one employed in the growing of hops that they go largely to the dyeing trade, but of this I know nothing.

Take a collateral industry, with which we are more familiar, to show us the extent to which the principal ingredients of food products are now required in the common dietary of life.

I know for a fact that in the biscuit trade one large firm alone uses, on an average, daily, as many eggs as would take 150,000 hens to lay, and as much milk as 19,000 cows could provide. This is a startling fact to most of us who probably think that the quantity of milk and eggs used in biscuit and cake making is comparatively a negligible quan-

tity. How much more then the bitters, one of the chief ingredients in such a colossal industry as brewing.

If hops, entirely, were used it would seem to demand almost the entire plough land of the country for the purpose.

The same may be said of malt. What becomes of all the dextrine combinations and similar ingredients imported into the country. Shipload after shipload, thousands of tons after thousands of tons; where do they all go to? They must enter into our food in some way. What are they for?

The names of malt and hops are still allowed to be used as nominally the ingredients relied on for beer making, but they must have been long ago superseded.

I knew two public houses in populous districts in one of our manufacturing towns, where the tenants were also the owners. Both these also included the adjoining houses, so that although looking no bigger than an ordinary pub, they could accommodate at the same time, a many people. They did not excite more than ordinary attention, on account of their ordinary appearance, but each was the resort of an enormous number of customers for their drinks. They were both well conducted, and very quiet, never any noise or disturbance, but they did an extensive quiet trade. Both brewed their own beer, and there was always a great display of "grains" or malt, etc., outside their premises Both owners retired wealthy. I asked one of them how it was they drew such an immense popularity? "Because," he replied, "we use nothing but malt and hops in brewing our beer." Judging from appearances, it did seem as though this was really the case.

One morning, however, very early, it was just light enough to see, I had occasion to pass one of these houses. A dray loaded to the full with square packages of those brewing products, dextrine, lævulose, or whatever they are called, stood at the gates of the brewing yard. A number of men were unloading the dray and hurrying the packages into the buildings within. I stood to watch, and, in a surprisingly short time, the dray was emptied and driven off. Here then was the explanation of "nothing but malt and hops." How often was this dray unloaded? How many mornings in the week did it appear at dawn? At the same time the malt and hops used to arrive in the busy times of the day and the loads of "grains" left standing smoking hot for the benefit of all and sundry who saw in them the evidence of malt having been used.

The art of brewing from malt and hops and "a handful of salt" is fast dying out. There is as much skill required as in making wine, but the time required in letting it mature, etc., naturally, is so much time wasted, so quicker and more economical methods are adopted. Meanwhile the public palate is being educated to the artificial taste, but I am old enough to remember the time when it was possible to obtain the genuine article properly brewed and matured; and a more grateful drink for a thirsty man it was impossible to procure. It left no artificial thirst, nor alcoholic craving, but was as harmless in any after results as a draught of pure water.

C.

Reviews.

General.

The Extra Pharmacopœia. Volume II. Revised by W. HARRISON MARTINDALE, Ph.D., Ph.Ch., F.G.S., and W. WYNN WESTCOTT, M.B. Lond., D.P.H. Eighteenth Edition. Pages xlii. + 728. Published by Messrs. H. K. Lewis & Co., Ltd. *Price* 20*s. net.*

THIS is an addendum to the first volume, issued last October; it deals chiefly with analytical, experimental and research work. The chief idea of the "extra pharmacopœia" is to keep the busy medical man "posted" and abreast of the times and for that reason the present volume contains some new information on matters of treatment, information, which would have become relatively stale by the time of publication of the next issue of Volume I., where matters relating to treatment are usually found.

One-fifth of the entire volume is devoted to analytical addenda to the Materia Medica in Volume I., the next longest section dealing with bacteriological and clinical notes with reference

to special diseases. An interesting section is that relating to the analyses of proprietary medicines, while among the numerous other sections are found a scheme for the recognition of organic substances used in therapeutics with a large number of corroborative tests, notes on the physiological effect of synthetic drugs in comparison to their chemical constitution, on radiology and radium and on the British Spas and climatic health resorts. A full general index of both volumes ends Volume II., which is a very necessary sequel of Volume I.

A Short History of Anatomy. By RICHARD HUNTER, M.D. Pages, 51. Published by Messrs. John Bale, Sons and Danielsson, Ltd., London. *Price 2s. net.*

THIS little book is written in the hope that it may come into the hands of medical students at the beginning of their study of anatomy and give them an interest in the long history of the subject. We recommend it to them, but also to those whose study of anatomy is ended. It is a little book which is well worth reading.

Medicine.

An Index of Treatment. Edited by ROBERT HUTCHISON, M.D., F.R.C.P., and JAMES SHERREN, C.B.E., F.R.C.S. Ninth Edition, Revised and Enlarged. Pages xviii. + 1035. Published by Messrs. John Wright & Son, Ltd., Bristol. *Price*, 42*s. net.*

THE price of medical text-books is high and their numbers increase daily. Under these circumstances the collection of an adequate medical library becomes a real difficulty to the newly qualified man, who needs to use great care in buying only those books that will be of use in the practice of his profession. Many of his books will be of very occasional use and will justify their price chiefly by lending an air of deep learning to the shelves that they adorn. The book under review will not adorn a shelf; it will reside on the desk in the Consulting Room. For in it the editors have collected the methods of treatment, recommended by ninety-six contributors, each of whom is a well-recognised authority on his own subject. There is a notable absence of alternative treatments, each condition being given only those, that, in the contributor's opinion, are the most efficacious. Covering a very wide field, the book has been brought through many editions to a very advanced state of perfection and the two guineas spent in its purchase will be found to be well spent indeed. The conditions, for which treatments are given, appear in alphabetical order and any disease may be turned up in a moment, while there is an additional index at the end.

Elaborate, operative treatment is not described and the management of labour has not been regarded as falling within the scope of the work.

Of alterations in this edition, infective endocarditis, spinal analgesia and the general treatment of surgical tuberculosis are included for the first time, while the articles on asthma, diabetes, fractures, gonorrhœa, nephritis and syphilis have been revised.

Radiography.

Injuries of the Wrist, a Radiological Study. By Dr. ETIENNE DESTOL. Published by Messrs. Ernest Benn, Ltd. *Price* 18*s.*

WE welcome an English translation of Dr. Etienne Destol's book. It is a complete and accurate radiological study of the various traumatic lesions which are found in this region.

Fracture and dislocation of the scaphoid and semilunar are dealt with at great length and there are separate chapters on the more rare fractures and dislocations of the carpus.

The book is freely illustrated by prints and diagrams from negatives, as its title implies.

Many of the radiograms are of excellent quality but a few are badly reproduced. Stress is laid on the importance of X-ray examination of apparently trivial injuries, and the desirability of a standardised technique.

The book is written with the logical precision that marks the literary style of a Frenchman, and the writer explains his methods and theories with the skill of a born teacher; he has been fortunate in his translator.

Sport.

Cricket.

Resumé of Season 1925.

1st XI.

THE season of 1925 will be remembered as being as good as, if not better than, any previous season. It is certainly the best we have had since the War.

The bare results are:—Played 27, won 21, tied 1, lost 2, drawn 3.

It will be seen that only two matches were lost, and of these two, one was the first match of the season, when the side was much depleted.

There have been three main reasons for our success this year; the all-round strength of the batting, the magnificent bowling of Van Schalkwijk, and the fielding. In addition to this there has been the greatest enthusiasm throughout all the members of the Club.

It will be seen from the averages that eight were between 19·8 and 30, and that seven men made over 390 runs. It was this general ability to get runs that has been so useful to us; there was always someone who "came off." Catchpole had a very good season, as did Curtis. But Fellowes-Smith was the most improved bat on the side, his hitting being invaluable. Williams, whose captaincy of the team has been excellent, has made many runs. Pye-Smith, though not making as many runs as the others, has played several useful innings. In Garland the side have found another quick scorer.

The brunt of the bowling has once again fallen on Van Schalkwijk. Though perhaps not bowling so fast as formerly, he has had a wonderful year as his record of 110 wickets for 11·99 runs each shows. Match after match he has bowled 20 or more overs with hardly a bad ball, and his 8 wickets in the last innings of the Final, including the "hat trick," was a fitting climax to a great season's work. Of the other bowlers Houghton and North have given useful support. The absence of Durr for most of the season weakened the bowling considerably.

The fielding of the side has generally been good, and sometimes was really excellent, and to this fact we owe it that we tied in the Final.

We played through four rounds of the Cup; the first two matches gave us easy wins, but the semi-final against London was a much closer game; the tie in the final with St. Bartholomew's has already been reported at length.

Next season we hope to have every one of this year's XI. back again, as well as Durr and Ensor: the outlook is therefore very bright.

Averages:—

BATTING AVERAGES.

	Inngs.	Not out	Highest Scores.	Total Runs.	Avg.
L. Catchpole ...	21	1	82	599	29·95
A. H. Curtis	23	0	100	675	29·35
G. Fellowes-Smith ...	28	1	103	765	28·33
L. S. Williams ...	28	1	104	688	25·48
E. J. Pye-Smith ...	21	1	66	461	23·05
V. R. Preen	24	3	81*	393	18·71
G. T. Clarke	19	2	88	296	17·4
J. G. van Schalkwijk	26	2	58	417	17·38
W. H. G. North ...	23	5	35	231	12·83
L. W. Houghton ...	15	5	36*	94	9·4
Also batted—					
T. O. Garland ...	7	0	50	169	24·14
A. G. Ensor	10	2	67*	179	22·38
J. Durr	6	1	56	98	19·6

BOWLING AVERAGES.

	Overs.	Mdns.	Runs.	Wkts.	Avg.
L. W. Houghton ...	132^4	24	342	30	11·4
J. G. van Schalkwijk	459	97	1319	110	11·99
W. H. G. North ...	210	38	554	42	13·19
G. Fellowes-Smith ...	111^4	23	347	35	13·88
G. T. Clarke	96^5	19	354	22	16·09
Also bowled—					
T. A. Garland ...	48	6	153	13	11·77
J. Durr	79^4	13	224	18	12·44

CATCHES.

J. G. van Schalkwijk	16	W. H. G. North ...	6
G. Fellowes-Smith...	14	V. R. Preen	6
L. S. Williams ...	13	L. Catchpole ...	5
A. H. Curtis ...	11		

E. J. Pye-Smith (w—k), Ct. 14, St. 5.

1st XI. v. Old Whitgiftians.

Played at Honor Oak Park, July 29th, resulting in a win for Guy's by 6 wickets.

Scores.—

Old Whitgiftians.—Total, 109.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	42	9	36	5
L. W. Houghton	12	1	27	2
W. H. G. North	9	1	26	2
L. S. Williams	1	0	3	0
G. Fellowes-Smith	2·2	0	3	1

Guy's.

A. G. Ensor, b Ling	12
L. W. Houghton, b Ling	0
L. Catchpole, run out	52
J. D. S. Thomas, c and b Ling	5
L. S. Williams, b Goodwin	12
G. Fellowes-Smith, c N. Ling b H. Ling	35
T. O. Garland, c Pegg b Ling	13
E. J. Pye-Smith, not out	38
J. G. Van Schalkwijk, c Goodwin b Pegg	5
S. R. Trick, b Pegg	2
W. H. G. North, c Ling b Pegg	8
Extras	7
Total	189

1st XI. v. Bexley Mental Hospital.

Played at Bexley, on August 8th, resulting in a win for Guy's by 3 wickets.

Scores:—

Bexley Mental Hospital.

Dr. A. Hancock, b Van Schalkwijk	4
G. Hammond, b Garland	0
H. Pepler, st Pye-Smith b Garland	12
R. F. Tait, st Pye-Smith b Garland	0
W. Charles, c Fellowes-Smith b Van Schalkwijk	25
Dr. Ford, run out	28
J. Williams, c Trick b Van Schalkwijk	18
A. S. Riches, c Trick b Van Schalkwijk	19
W. Jennings, c and b Van Schalkwijk	14
Dr. T. I. Williams, l.b.w. b Van Schalkwijk	1
G. Lennox, not out	0
Extras	20
Total	141

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	24·2	5	60	6
T. O. Garland	13	2	42	3
D. M. Calder	1	0	7	0
G. Fellowes-Smith	10	6	12	0

Guy's.

T. O. Garland, c Hammond b Williams	0
E. J. Pye-Smith, b Williams	0
A. G. Ensor, not out	67
L. S. Williams, b Williams	21
G. Fellowes-Smith, c Hammond b Lennox	22
J. G. Van Schalkwijk, c Charles b Pepler	32
V. R. Preen, b Pepler	0
S. R. Trick, run out	1
D. M. Calder, c Williams b Pepler	8
E. Fulford, st Jennings b Lennox	3
A. N. Other st Jennings b Lennox	0
Extras	15
Total	169

1st XI. v. Private Banks.

Played at Catford, on August 12th, resulting in a draw.

Scores:—

Guy's.

E. J. Pye-Smith, c Murch b FitzAucher	5
T. O. Garland, b FitzAucher	40
L. Catchpole, st Murch b Sercombe	49
A. G. Ensor, b FitzAucher	3
L. S. Williams, b Sabin	15
G. Fellowes-Smith, c Irvine b FitzAucher	2
J. G. Van Schalkwijk, b FitzAucher	12
V. R. Preen, b Sercombe	10
S. R. Trick, b Sercombe	4
E. Fulford, b FitzAucher	0
D. M. Calder, not out	7
Extras	4
Total	151

Private Banks.—Total, 129 for 7 wickets.

Bowling Analysis.

	o.	m.	r.	w.
J. G. Van Schalkwijk	21	5	46	4
T. O. Garland	13	0	46	2
G. Fellowes-Smith	12	2	30	0

Golf.

St. Bart.'s v. Guy's in 2nd Round of Inter-Hospital Cup.

Played at West Kent Golf Club Course, Chislehurst. St. Bart.'s won by 7 matches to 5.

SINGLES.

Glover	0	Barnes	1	at 21st
Cann	1	White	0	4 & 2
Bown	1	Houghton	0	2 & 1
Gathergood	0	Woodrow	1	4 & 3
Evans	0	Cox	1	4 & 3
Pye-Smith	1	Burt	0	7 & 5
Vernon	1	Kendall	0	
Anderson	1	Buckley	0	2 & 1

FORESOMES.

Glover & Cann	0	Barnes & Woodrow	1	2 & 1
Bown & Gathergood	0	Houghton & White	1	2 & 1
Evans & Pye-Smith	0	Cox & Burt	1	1 up.
Vernon & Anderson	0	Kendall & Buckley	1	4 & 3
	5		7	

Hospital Information, etc.

Blues Committee.

THE Summer Meeting of the Blue's Committee will be held in Room 28, in the College, at 12 noon, on Wednesday, 2nd September. Recommendations for awards must be in my hands not later than 12 noon on the preceding Monday. Agenda :—

1. Recommendations.
2. Election of Secretary.
3. Any other business.

JOHN SIMONS,
Hon. Sec., Blue's Committee.

Change of Address.

G. W. Dibble, L.D.S., Bank Chambers, 115, High Street, Stourbridge.

Guy's Hospital Gazette.

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The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Publications Received.

The Long Island Medical Journal, The Antiseptic, The British Medical Journal, The Nursing Times, The Sydney University Medical Journal, The Fight Against Disease, Oral Health, The Rotunda Lying-In Hospital Clinical Report for the Year 1923—1924, *The Hospital Gazette, The Journal of Clinical Research, The Journal of the Royal Naval Medical Service, The St. Bartholomew's Hospital Journal, The Dental Record, The Prescriber, The Journal of Cancer, The Journal of the Canadian Medical Association, The Indian Medical Record, The Archives of Medical Hydrology, The Medical Review, The Journal of the Architectural Association, The St. Mary's Hospital Gazette, The Journal of the Curative Medical Association, The Burma Medical Times.*

Births.

CURLE.—On August 9th, at Jesmond Dene, Wellington Road Bournemouth, to Margaretta and Cyril Lister Curle, a son.

DEBENHAM.—On August 19th, 1925, to Dr. and Mrs. L. S. Debenham, Scarborough, a daughter.

EVANS.—On August 13th, at Glanfraed, Brundall, Norwich, to the wife of Henry W. Evans, M.D., a son.

GRICE.—On 30th July, at Tientsin, China, to Mr. and Mrs. J. W. H. Grice, a daughter.

SOOTHILL.—On August 20th, at Stonefield, Blackheath, to Dr. and Mrs. V. F. Soothill, of Mansfield Road, Ilford, a son.

Marriage.

CANNING—TURTON.—On August 19th, 1925, at St. Saviour's, W.9, Henry George Richmond Canning, L.R.C.P., M.R.C.S., L.D.S. Eng., of Wimpole Street, W.1, elder son of Mr. and Mrs. Canning, of Rowlands Castle, Hampshire, to Ruth Helen Gwenyth, only daughter of Mr. and Mrs. Turton, of Tintagel, Cornwall.

Death.

WARNER.—On the 15th August, at Clacton-on-Sea, Cuthbert Warner, B.A., M.B., B.Ch., dearly loved son of the late Percy, and Alice Warner, of Grasmere, Woodford Green, after a long illness contracted during the War.

ED.—L. G. H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *September 12th, 1925.* *Number 970*

PASSIM

ON account of pressure of work at the Hospital for Sick Children, Great Ormond Street, Mr. L. G. Housden has resigned the Editorship of the GAZETTE. We are confident that we express the feelings of all our readers in conveying to him our warm appreciation of the keenness and disinterestedness he has shown not only in the discharge of his editorial duties, but in every one of the manifold spheres in which he has served the Hospital.

Much of the Bicentenary number of the GAZETTE was written by him, and to him lies the credit not only for conceiving of its eventual form and substance, but also for approaching the various contributors and extracting from them the finished article—no mean task. The widespread appreciation with which this number was received was a testimony to the conscientiousness and industry of its author.

In the course of his connection with Guy's Mr. Housden never refused to undertake any duty, however much trouble it might cost him, which might further the interests of the Hospital, or promote its corporate life, and his willingness and abilities were such as to ensure that such duties were as numerous as they were at times arduous.

It is with every expectation of their fulfilment that we convey to him our best wishes for a happy and successful career in that department of medicine in which he has elected to specialise.

IT has occurred to us to suggest a new feature of the GAZETTE which might prove interesting and instructive to our readers. We propose that surgical and medical ward clerks and clerks and dressers in the various special departments might forward to this office for publication reports confined approximately to 500 words upon interesting cases under their care, stressing particularly the treatment followed and the results attending it. Two good effects would follow from such a procedure. In the first place, students and nurses now at the Hospital, as well as old Guy's men, would be kept informed of interesting or unusual cases admitted into the wards, and acquainted with the various forms of treatment which now find favour. In the second place, a preliminary cantering ground would be provided for those neophytes of the future medical literary world who, we feel assured, are well numbered among our students. Registrars of the various firms are exhorted to use their influence to overcome that diffidence which so obviously characterises the Guy's man, especially in his student days, by urging their disciples to submit reports of interesting cases, first to them for consideration and possible correction, and then to this office.

It appears to us that this would prove an excellent substitute for the custom which prevailed a short time ago of publishing in each number of the GAZETTE a list of those cases of particular interest then present in the Hospital. We understand that this custom was dropped because very material objections arose. The most "interesting" cases are usually very ill; and it was found that as soon as the GAZETTE was published, with its list of interesting cases, these patients would be visited by a continuous stream of enthusiastic embryo medicos eager to palpate that already much too tender lump of the surgical case, or to make merry with percussion fingers, stethoscopes, ophthalmoscopes and jerk hammers, on the aching medical case, who would have given anything to be allowed to lie still and end his days peacefully. As the patients certainly did not appreciate, and seemed rather inclined to get worse than better under, the attention of this profusion of medical talent, it was decided that the custom must be dropped.

It seems to us that the repression of such admirable enthusiasm cannot but show itself as perverted attitude of mind towards medicine. We therefore tentatively put forward this suggestion; and willingly offer the columns of the GAZETTE in order to provide a channel for the pent up enthusiasms of dressers and ward clerks. We shall be happy to give further space to cases of especial moment, publishing them as separate articles.

This plan falls short of the original one in that it does not give the opportunity for the clinical examination of the cases; but, on the other hand, the cases described would be of interest to all readers of the GAZETTE, whereas a mere list of interesting cases is only of use to those who are actually working in the Hospital.

▭

ON Tuesday, September 3rd, we had the pleasure of a visit by Dr. MacCallum, the author of the world-famed "Text Book of Pathology." At 1.30 p.m. he performed a post-mortem upon a case that had been taken in under Dr. French two days before. The attendance was such as to tax the capacity of our improvised P.-M. room to its utmost. After being introduced by Professor Stokes, Dr. MacCallum said he was pleased to come to Guy's and demonstrate to us, adding: "though I am not much of an expert on these things." His audience gazed and wondered practically what exactly Dr. MacCallum thought an expert was. The remark recalled the opening words of an address given us some two years ago by Dr. Charles Mayo which began: "Fellow students." Perhaps with Dr. Mayo, Dr. MacCallum considers himself still a student, and that the terms "student" and "expert" are incompatible. Dr. MacCallum's brilliant demonstration was greatly appreciated.

It is always pleasant to see in the flesh the authors of books over which one has laboured, more especially if (as in this case) the labour has been interesting and, so far as the limited intelligence of the reader will admit, not unprofitable. Before leaving the P.-M. room Dr. MacCallum remarked to a student who asked him a question: "Say, it's good to see you all so interested in Necropsies!"

We do not know what part of America Dr. MacCallum comes from, but if his home is in the heart of the prairie, where the grasses undulate and bow peacefully before the summer breezes, he must have felt at home in the Park on the afternoon of his visit.

He will also have been interested to observe an individual solemnly cutting the grass with shears. We suggest that more fresh air and healthy exercise would be provided for the Nursing Staff were they to extend their activities from the flower beds in front of the Wills Library and turn out to cut the grass blade by thick blade, with blunt-nosed dressing scissors.

▭

BEFORE the war it was the custom for some well-known person to give an address at the opening of the Winter Session, which is the beginning of our Academic Year. This custom is to be revived this year, and we are pleased to announce that Major J. H. Beith, C.B.E., M.C., ("Ian Hay"), has kindly consented to come and give the address.

The Dean requests that all students who wish to attend will give in their names to the Medical School Office, as, provided that a sufficient number do so, the audience will be restricted to Students and Staff.

The address will be given on Tuesday, September 29th, at 3 p.m., in the Physiology Lecture Theatre.

We are sure that everybody who can possibly do so will make a point of being present to hear Major Beith, and to welcome him to Guy's.

GUY'S, as ever, is divided against itself. The vexed question, which now threatens to rend the Colonnade, and shake the Quadrangle, rages round the GAZETTE office.

"Are we to have an Editorial, or are we to be content with a pure and simple "Passim?" That is the problem which is discussed at dinner, and echoes long after in the subway.

Already we have piles of correspondence on the subject, but we shall welcome more.

OUR heartiest congratulations to S. Shone, who has gained distinction marks at the examination in Organic Chemistry (2nd M.B., B.S., Pt. 1) in July, 1925. He enjoys also the honour of being the only candidate to achieve distinction at that examination.

Guy's men, we feel, are unlucky as a rule at these examinations; it is with particular warmness, therefore, that we congratulate those candidates who succeed in bringing the laurels to Guy's.

OLD Guy's men of the immediate pre-war period will be interested to hear that J. M. Joly, who entered the School in 1906, first qualified in 1912, and took the M.B., B.S. in 1913, has been warded in the Hospital.

After being House-Surgeon to John Dunn, Joly went to the Far East, to Upper Assam, near the North East Frontier, where he has resided ever since.

For some time he has been the victim of gastric irregularities; but, after *operative* treatment, is now on the high road to health.

In this connection it is interesting to hear that one very eminent surgeon considers that those cases of "gastric ulcer" which, diagnosed as such upon the surgical side, do not clear up with gastric feeds upon the medical side, prove the point against gastric feeds, and do not revoke the diagnosis nor the desirability of operative treatment.

We wish we had heard the physician retort. Alas, he could not!

WE regret to record the death of Probationer Edith Kirkham, who died in Mary Private Room on Friday, August 21st, 1925. Miss Kirkham entered the Hospital as a Paying Probationer on June 17th, 1925, and had only been working in the wards a short time when she contracted pneumonia and died after a few days' illness.

The funeral took place at Putney Vale Cemetery, the first part of the Burial Service was held in the Hospital Chapel and was attended by the Medical Superintendent and members of the Nursing Staff.

During the short time Nurse Kirkham had been at Guy's she had taken the keenest interest in her work, and much sympathy is felt for her relatives in their sad bereavement.

WE would remind all Sports and Society Secretaries that our next issue will be the Annual Students' Number. We shall welcome any notices, or propaganda to which they may wish to call the attention of the newcomer.

Events of Interest for Fortnight ending September 26th.

Monday, Sept. 14th.—Entries close for First Conjoint and Pre-Medical Examinations.

Tuesday 15th—Examinations for Senior Science Scholarships begin.

Rearrangement of Out-Patients' Surgeons' days.

Wednesday 16th—Entries close for Second Conjoint Exam. (Part 1).

Saturday 19th—Entries close for Second Conjoint Exam. (Part 2).

Monday 21st—Entries close for Final Conjoint Examination.

Last day of application for Entry Forms for Final M.B., B.S.Lond.

Wednesday, 23rd—October Appointment List closes.

Saturday, 26th—Great Torchlight and Searchlight Tattoo by the Royal Navy, the Army and the Royal Air Force in the Stadium, Wembley, terminates.

Obituary.

Walter Carless Swayne,

M.D., B.S.Lond., M.D., Ch.B.Bristol.

Professor of Obstetrics in the University of Bristol, Consulting Obstetrician and Gynæcologist to the Bristol Royal Infirmary.

(*Extracts from the B.M.J., August 22nd, 1925.*)

WE regret to record the death of Dr. Walter C. Swayne, Professor of Obstetrics in the University of Bristol, at the age of 63. He met his death in sadly tragic circumstances in his daughter's house at Sellack, near Ross, Herefordshire. It appears that his son-in-law, Mr. R. L. Wreford-Brown, on the night of August 13th, alarmed the household by firing revolver shots at random in his room. Dr. Walter Swayne courageously attempted to disarm him, and received several shots in the abdomen, which proved fatal in a few hours. At the inquest on August 15th a verdict of murder was returned, but the Coroner said that at the Assizes evidence would certainly be put forward that the accused was insane.

Dr. Swayne was born on April 19th, 1862, at Mathon in Worcestershire. He was the eldest son of Mr. R. A. Swayne, of Tillington Court, Hereford, and a nephew of the late Dr. Joseph Griffiths Swayne of Bristol. In 1913 he edited the eleventh edition of his uncle's famous book, *Swayne's Obstetric Aphorisms*. He received his education at King Edward's School, Birmingham, University College, Bristol, the Bristol General Hospital, and Guy's Hospital. He represented Guy's at Rugby football and on the river—in fact, it was due chiefly to his energy that the Rowing Club was revived at Guy's. In 1888 he was Resident Obstetric Officer at the Hospital. Shortly afterwards he commenced to practise in Clifton, and, following the example of his uncle, soon made his mark as an Obstetrician. In 1891 he succeeded Dr. E. Wedmore, as Obstetric Physician at the Bristol Royal Infirmary. This post was a comparatively new one, having been first created in 1887. Dr. Swayne experienced at the Royal Infirmary the usual amount of opposition to the establishment of the speciality of gynæcology, and it was not until 1904 that the Infirmary rules were altered to permit of the Gynæcologist performing abdominal operations. It is worthy of note that although Swayne found himself opposing and opposed by his colleagues in his long struggle for the right of a Gynæcologist to perform major operations, his friendships with them never suffered. He was always "Dicky" Swayne to his opponents in the midst of hot controversy. In the end he succeeded in establishing a model Department of Midwifery, both intern and extern, and of Gynæcology.

One of the most striking features in Swayne's professional career and in his character was his total lack of anything like jealousy for his younger colleagues and possible rivals in his own specialism, and it was with great pride that he used to watch the progress of his pupils, Miles Phillips and King in Sheffield, Green-Armytage in India, and Statham in Bristol.

Outside of his profession Swayne's chief hobby lay in soldiering. He was a keen student of military history and early in life joined the Gloucestershire Artillery Volunteers as a boy trumpeter. He eventually rose to the rank of Major in the Territorial Artillery, and received the Volunteer Decoration after twenty years' service. Subsequently he raised the third line of the South Midland R.F.A., and finally commanded a battery of New Zealand Artillery on Salisbury Plain, which he had the satisfaction of conducting overseas to France, although to his lasting regret his age debarred him from remaining to serve with the battery at the Front. In addition, Swayne was a keen Freemason and had been Master of St. Vincent Lodge in Bristol and a Grand Warden in the Province of Bristol. His chief sport in his later years was trout fishing, and in his country wanderings with his rod he used to search out and study any remains of the Roman occupation of Britain that came his way.

In 1894 he married the daughter of the late Rev. R. F. Heath. His widow, with three daughters and a son, survive him, and we offer them our deep sympathy in their sad bereavement.

Memories of Walter C. Swayne as a Student at Guy's.

THE tragic death of Walter C. Swayne will have produced a very profound impression on those who knew him and his character.

I knew him intimately when he was a student at Guy's, from 1886 to 1890, and although it has never been my good fortune to meet him again since then, the memory of the man is as strong now as it was those 35 years ago as one whom it was good to have known.

He was a short well-built man with an invariable smile of welcome, and his hands stuck far into his trousers' pockets which were cut square like a sailorman's.

He was quiet and unassuming, and combined a charming simplicity of manner and general good fellowship with a head which was wise in council and a resolute will which only looked at difficulties as things to be overcome.

He was a clean liver and thinker who was always kind and cheery, and pursued a persistent course in the direction he considered the proper one, irrespective of discouragement or disappointment. A lovable character to those who knew him well he was besides one to admire and depend on in good times or ill.

He played for Guy's at Rugby football and was keen on sport in general, but chiefly on rowing, and it was almost entirely due to his unwearying efforts that the Guy's Rowing Club was revived in 1888, when he was elected Hon. Secretary and Treasurer.

Our Captain was that fine all round athlete and sportsman, E. M. Pilcher (now retired Maj-Gen. R.A.M.C.), who had to go to Cambridge to take an examination a few days before the Inter-Hospital Cup race. Walter Swayne was first reserve for the boat and it was one of his great ambitions to represent his Hospital at Rowing. He was put into the boat and rowed, but I cannot find any record of it in the GAZETTE or remember if we won or not.

The incident of the race, however, which is stamped on my memory was that on getting out of the boat we saw Walter Swayne's shorts soaked in blood. On disrobing he disclosed the two worst "raws" I have ever seen due to rowing. He confessed that the raws were well established when we put him into the boat and they got worse every time we went on the river. He had with infinite pains concealed this fact from us lest we should have prevented him rowing in the race, which would certainly have been the case had we known what agony he was being put to. There are very very few men who would have suffered the pain he did to row in a race, and he pulled as hard as anyone right out to the finish.

His professional career, his struggles and successes were dealt with in an excellent article in the *B.M.J.*, an extract from which is given above. I speak of him only as I knew him in his student days and it is apparent his life has been lived and shaped by that character and those traits of steadfast determination which were shown so clearly in the everyday doings of our student days.

One knows how he would have looked death in the face unfalteringly and finding himself right up against it, would have quietly carried on in the way which he thought his duty.

A splendid fellow and a resolute man.

A. ALLPORT.

Ormond D'Ewes Morris.

ORMOND D'EWES MORRIS was a dental student at Guy's, entering upon his clinical course in May, 1919. He was one of a batch of South Africans who came over to England soon after the war in order to continue their studies.

Morris had seen service in East Africa and there sustained an injury to his foot and back, for the former of which he was operated upon at Guy's. The latter had had more serious consequences than was at first supposed and led eventually to his untimely death.

Morris was a quiet, unassuming fellow who played his part as a student, both in the Hospital and at sport. He played Rugby, cricket and tennis. He qualified L.D.S., R.C.S.Eng. in 1921, and returned to practise at first in Wynberg, Cape Town, and later at Somerset Strand.

The sympathy of all who knew him will go out to his wife and young child as well as his parents and other relations.

Walter Thomas Nash.

ON Monday, August 31st, the Medical School bade farewell to one of its most popular figures, Walter Thomas Nash.

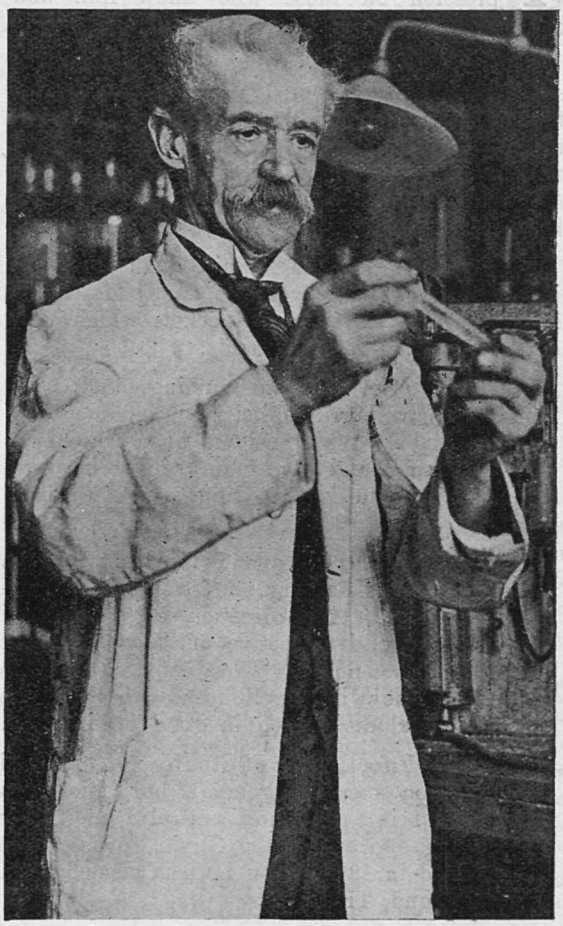
Nash was born in August, 1860, and spent his early days in the Chemical Laboratories of the Royal Naval College. In March, 1896, he commenced service for Guy's Hospital Medical School, as Laboratory Attendant in the Chemical Department, where he has served continuously for the last 29 years.

Nash was a very consistent fellow. He was to be seen entering the Hospital regularly at 8.20 a.m., whether this wa due to his early association with the sea, or to his eagerness for punctuality, as he himself often affirmed, we cannot say; certain it is, however, that "unknowns" ceased to be available at 12.30 p.m., with unerring punctuality, and that everyone was greeted with an equally punctillious salute, and an "Aye-aye, Sir," when 2 o'clock struck.

On Monday, August 31st, in the Medical School Committee Room, the Dean presiding, his fellow servants in the Medical School presented Nash with a testimonial, which took the form of a sum of money.

In making the presentation, the Dean congratulated Nash on completing just under 30 years of service. Throughout that time his work had been characterised by meticulous, conscientiousness, absolute integrity, and cheerful optimism. His loyalty to the School and Chemistry Department had been unswerving throughout; it was hoped that Nash would live long to enjoy his well-earned pension.

Nash leaves Guy's at the age of sixty-five. He has been due to retire for the last five years, but he elected to "'carry-on"; we hope that his energy may remain unimpaired during the years of rest that follow.



"NASH" AT PLAY.

Change of Address.

H. Slater, L.D.S. Lyndholme, Chertsey Road, Woking.

Dr. B. Campbell Gowan, Hartfell, Cavendish Rd., Bournemouth.

W. G. R. Hore, M.R.C.S., L.R.C.P., D.L.O., R.C.P.S., 120, Osmaston Road, Derby.

N. B. Odgers, 96, Woodstock Road, Oxford.

F. D. Annesley, Capt., R.A.M.C., Folletts, Farnborough Road, Farnborough, Hants.

J. H. D. Myatt, L.D.S., R.C.S., 6, Stoke Road, Shelton, Stoke-on-Trent.

Guy's Hospital Gazette.

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Some Noses and their Owners.

Clinical Lecture by T. B. LAYTON, F.R.C.S.

THERE are many persons at the present day who are no better as a result of operations that have been done upon their noses, a considerable number who are decidedly the worse, and still more in whom the improvement has lasted only for a short time, say up to six months. Though many of these poor or bad results are due to bad operating they are certainly not all so due, most, indeed, are probably due to errors in judgement in the selection of the case for operation. Now in operative surgery there are three things to be learnt. The first is how to do a given operation. This can be learnt, by anyone with industry enough, by studying the structure of the part, by seeing sufficiently often the technique of other workers, and by practising the operation upon the cadaver and performing it upon the living. The second is when to do the operation. For this there is needed a considerable amount of intelligence combined with a wide knowledge of human nature and a rigid spirit of self-criticism. It can only be gained as times goes on by following through one's own cases for long periods and by studying the results of others. The third is to know when to stop. This is most difficult of all. Some never learn it; but few of us are really good at it, though it marks off, perhaps more than any other single point, the great surgeon from the rest of his generation. It is of certain aspects of the second of these three things in its relation to rhinal surgery that we are to consider now.

The principle which I wish you to realise to-day before you leave this theatre is that in deciding whether an operation should be done in a nose for any given lesion you must consider not only the lesion for which you advise the operation, but also the nose in which that lesion is and the person who owns that nose. Thus when a patient suffers from nasal obstruction and you find a deviated septum it may seem clear that an operation upon that septum is indicated. But there are many perhaps who, owing to age, to their mental condition, or their habit of body, should not have the operation done upon them even though they suffer from nasal obstruction and though there be a deviation; so also there are certain noses the configuration of which is such that an operation is inadvisable even though the patient may be quite a suitable one upon whom to operate.

Let us, then, consider the noses. Those to which I would first draw your attention are the very wide ones and the very narrow ones. By this I mean those noses in which the nasal fossa from side to side is narrow or wide. This does not necessarily mean that the external nose is so, although this is frequently the case, nor is the wide or narrow nose always associated with a wide or narrow nasal orifice. If, however, the large, round, anterior nares with a tilted nose or nez retroussé accompanies a wide nasal fossa the warnings that I am about to make are all the more important. So, also, if there is a narrow slit to the anterior nares with collapsible alæ the difficulties of doing good in the narrow nose are all the greater.

The general principle to follow in dealing with the patient with the wide nose is to avoid operation on every occasion for fear of setting up atrophic rhinitis. There are, of course, degrees within which this rule must be obeyed. In one person it may be an absolute contra-indication to anything being done, in another it may merely mean that you must go warily, or that particular care must be taken to conserve every piece of mucous membrane; but atrophic rhinitis is so terrible to the sufferer that there is no complaint of the nose, the symptoms of which are more distressing, painful and unpleasant, and therefore you may be sure that you have done your patient more harm than you have done good if you set up this complaint.

In this connection there is a method of examination to which I would draw your attention. It is the observation of the posterior wall of the naso-pharynx by anterior rhinoscopy. You should practise looking for this in every patient. If you see it you can estimate how far back in the nasal fossa are other pieces of mucous membrane, and thus you realise what these pieces are, but in addition this examination helps you to estimate the size of the nose. If you can see the posterior wall with any ease you know that you have a patient with a dangerously wide nose and one who is likely to

develop atrophic rhinitis if much mucous membrane is removed. If you have a patient in whom you can see the orifices of the Eustachian tubes or the lateral wall of the pharynx during the movements in swallowing then you may feel certain that the patient will develop this most distressing complaint if you do any operation on the nose at all.

The examination should be repeated after the mucous membrane has been shrivelled with cocaine and adrenalin. When this is done you will sometimes discover a nose in its bony framework bigger and more roomy than you ever expected it to be before the membrane had been shrunk. Then you must look upon much of this swelling of the mucous membrane as a compensatory hypertrophy and as a something most carefully to be conserved rather than as a something to be removed. Often this hypertrophy affects especially the front end of the inferior turbinal. Sometimes it takes the form of a localised polypoid mass projecting from the turbinal further back. At other times again polypi hang down from the middle meatus and are apparently merely a method whereby Nature increases the surface of the mucous membrane when this is small relatively to the cubic capacity of the nasal fossa. None of these things should be removed from the nose of which the air-way appears to be excessive after its lining has been shrivelled. These appearances have a special interest in what may be called the "uneven nose," by which I mean one in which the airway is markedly different on the two sides. They appear on the larger side and their removal will set up atrophic rhinitis on this side only; but if something can be done to narrow this side they will tend to disappear. The condition may occur when a septum is deviated to the other side. There may be early atrophic rhinitis on the concave side only, and the correction of this deformity may improve the condition on the concave side. In deciding to do an operation on the septum for the alleviation of such condition on the concave side however, great care must be taken that no harm is done to the convex side as may happen if too big an air-way on that side results from the operation. This may occur if the total width of the two nasal fossæ is very large.

We pass from the wide to the narrow nose. The point to be remembered here is not that you may do the patient harm, but that you are not likely to do much good; or, perhaps, that when you do him harm the result is not so distressing. Thus I know a man with a long narrow face who in his youth suffered from nasal obstruction and was a mouth breather. He had one or more operations upon his nose with the result that he now has a perforation through his septum and breathes through his nose. His mouth-breathing is cured, but even since the cure he has been subject to colds, one after the other, starting in the nose, going down the throat past the larynx into his chest. He never had these before the operation, and he doubts whether the discomfort that he had from the mouth-breathing was as great as that which he now has from his colds. I used to argue thus, that the actual amount of space to be gained by any given operative procedure in a narrow nose was small, but in proportion to the total airway it was so large that relatively the gain would be considerable and therefore these were the very cases in which an operation might be advised. I have found by experience that I was quite wrong. The total amount of space to be gained in the narrow nose is so small that unless one side is absolutely obstructed operation will not result in an increase of air-way sufficient to give any relief, no more in fact than may be had by the simpler methods of a nasal wash, some ointment in the vestibule, or even blowing the nose.

This is an example of the principle that in medicine deductive reasoning must never be followed unless it has been checked by inductive observation. I suppose that every advance in therapeutics results from some deductive reasoning. You cannot try a new operation or a new drug in a dozen different ways just to see what happens. You think it out—or reason it out—and think that on the evidence before you such and such a new step must be right. But often it is wrong, your reason is at fault because you cannot know all the factors in so complicated a problem, and so you must always be prepared to throw over your deductions when the results do not bear them out. That is where self-criticism comes in for fear you make your results fit in with your deductions. It is the same thing when we are first starting. We have then only the experience of our seniors on which to go; but we must not do what they say merely because they said it. We must try their methods and use them to see if they are right and be prepared to throw them over if we find them

wrong however high an opinion we may have of the senior from whom we learnt them.

With which dissertation we may pass on to what I call the "round-the-corner" nose, by which I mean that the bony framework of the nose as it is formed by the ascending process of the superior maxilla projects so far into the nasal cavity that the lateral wall of the fossa is tucked away behind it on a lateral plane. I suppose we should describe it by saying that there is a well-marked agger nasi, but the practical result is that the middle turbinal, the ethmoid cells, the bulla ethmoidalis, and all those structures in the middle meatus upon which we want to operate are so much around the corner that it is most difficult to get at them, and in deciding on an operation we must not only consider whether it will be of value when done, but also whether we are able efficiently to do it. This nose is, however, one for the specialist to consider, and it is time for us to pass on to the owner of the nose.

For there are many persons in whom operations had better not be done. We have got to remember in discussing this subject that most operations are done upon the nose to relieve some unpleasant symptom rather than for the prolongation or saving of life. If then we make the patient worse we cannot excuse ourselves by saying that we have saved him from something still worse. I am not referring here merely to the two extremes of life in which operations should be avoided on general principles if possible. In the elderly the disadvantages of operations are still present, though of recent years they have been diminished by advances in general anæsthesia and the advent of local anæsthesia. In children, however, I am strongly opposed to nasal operations on the same ground as I advise against them in the narrow adult nose. The nasal orifice is so small that it is very difficult to do any operation through it; the nasal fossæ are so small that any variation you can make within it has but small effect, and it seldom if ever matters if the child waits for adolescence before the operation is done.

There remains, then, the majority of patients in whom nasal operations have to be considered. This includes youths, young adults, and the middle-aged. Amongst these there are certain defined groups and other less well-defined groups in whom it is wise either not to do any nasal operation at all or to consider very carefully before you consent to do one. Some of these groups are recognised by their physical characteristics and some by their mental.

Firstly, there is the "juicy" person who in early middle age is beginning rapidly to put on weight. The type is best seen in the male sex. Often he has been a good or a moderate athlete in his youth. He needs much exercise to keep him fit; as a young man he found that a hard game on Saturday and a walk on Sunday kept him in the pink of condition. Now he is unable to take quite such strenuous exercise and finds that daily exercise of a moderate type alone will keep him hard; and this amount of time he cannot afford from his work at which he is beginning to get busy. Perhaps it was these very sports which developed his frame and muscles, and have left these too big for his needs. Either he allows himself to become unduly fat without worry, or he is always thinking of it, imagining there is something wrong, conjuring up symptoms in various parts of the body, amongst others in the nose. The type also occurs amongst women; if she is married she is described as becoming very matronly; if unmarried she is the "universal aunt" of the rising generation, always jolly and ready to go out with the youngsters on a jaunt on which they cannot go alone. In either sex there is a high colour of the face, a considerable increase of sub-cutaneous tissue, often with a greasy skin with patulous orifices to the follicles. There is much mucus in the mouth of a sticky sort, and either the same in the nose or a tendency to a dry rhinitis. The mucous membrane over the turbinals and septum is red, turgid and swollen, so that the symptoms are not all imaginary. You feel as you look at them that at the age of fifty there will be the onset of catarrhal deafness and at sixty anxieties from high blood-pressure may have set in. They are difficult to examine; to put the speculum within the nose will either start them sneezing or make them start away from the discomfort; the tongue depresser in the mouth sets up a retching and in an exaggerated instance its mere insertion through the lips has caused the patient to vomit.

Then there is another type almost an antithesis of the last and best seen among women. She is probably married, she is small, she is thin, she is quick in all her movements. Her children are always well dressed and clean. She, herself, whatever she has been doing and however old her clothes, is always neat and always spotless. If you were able to see into her

house it would be the same. She suffers from headaches, and has some stuff coming down the back of her throat. You look inside the nose and find a high deviation of the septum, a low spur, a big inferior turbinal, a cystic mid-turbinal. Something which somebody has said it is a good thing on which to operate. You always can find something if you are one of those suggestible sort of people who always think they are doing good when they are cutting. You won't do this patient any good; rather you will appear to do some good for a time, which is longer the bigger the operation and the worse your technique. For she wants a rest, and nothing on earth will make that patient rest except an illness, an accident, or an operation; something which will make her take to her bed for a period of time. For she is one of those persons who cannot leave undone a thing she ought to have done, who cannot put off until to-morrow something that ought to be done to-day, and when she has finished all her ordinary work she finds something else to do. She has an irresistible drive, and no one within her reach can be idle for a moment, even if they dared. Men occasionally are like this, then they become Cabinet Ministers or Captains of Industry; but among women the type is commoner and they abound in the little houses from which we draw our out-patients, from Peckham Rye to Tooting Bec, from Bermondsey to Penge. We are inclined to call them nervous or neurotic and to say they worry too much. Yet this is wrong, they will face an emergency or an illness with any one and be heroic under pain. It is rather as though their nervous system were a spring trap set so as to go off with the touch of a hair. The moment any idea or any sensory impulse arrives at their brain the appropriate motor response must follow; if it cannot some other response will do so and she will fuss and worry. That is why you cannot keep her quiet. Doctors, husband, children and friends have been trying to do so for years and all have failed. The wise ones have given up trying.

Another type can be seen in young girls. She is petite, she is fair, she is a typist in the City. The strenuous life she leads is almost too much for her physique. She has but little money and still less knowledge how to spend it, so she lunches off a cup of coffee and a cream bun. Her mucous membranes are pale and she gets attacks of laryngitis so that you wonder if she is in for tubercle, you send her down to Dr. Marshall and get a clean bill of health so far as he is concerned. Having done that, do not operate upon her. Put her upon iron and arsenic and keep her on it for a period of six months. Chlorosis has, I know, gone the way of corsets, but this line of treatment is still most valuable for these patients. Often they are engaged to be married, either the ceremony is near at hand, or some hitch has occurred to make it recede into the distant mists without disappearing altogether.

A newly qualified man sent his fiancée to me. Her mother was worried about her. Was she strong enough to get married? Why did she have this "catarrh" and these headaches? Hadn't they better put it off till she became a bit stronger? But she took iron and arsenic pills for a period of six months, by the end of which she had been married three and was quite well.

In another patient I foolishly did operate. Her headaches were bad and she had a middle turbinal cell tightly pressing against her septum which might be causing them. She wanted to be married, but her mother was an invalid widow and she did not know who was to look after the two younger sisters. Dr. Marshall further forbade marriage for a time, and her headaches got worse. At last I removed this cyst and have regretted it ever since. Her mother died and the fear of consumption passed. She has married and has taken the two children into her new home, perhaps for that reason—perhaps for some other—she has not yet had a child after three years. But she has got a unilateral atrophic rhinitis, which secretes pus and forms crusts and for which I can do nothing. One thing is certain that the only symptom for which she came to me is still present, certainly as bad and probably worse—her headaches. It is no good telling your patient that you have cured her cyst of her middle turbinal if she still has her headaches. I could give you more instances of this type, but will not weary you; it is on such cases that I have come to believe that the early symptoms of disease arise in women from Love and in men from Finance.

For the counterpart of the last type in the male sex is ten to fifteen years older. He is married, he has a child, perhaps another one is on the way. He has a job, but as yet he has just not made a fixed place in life. His income is on the

increase, but his expenses are going up at a higher rate. He has boils in his vestibule and the mucous membrane over his low down spur —you will always find one if you want to—is red. You wonder if the removal of this will so improve the ventilation as to prevent the boils appearing. But you learn that he cannot take the time off. He knows he wants a holiday, and there is a fortnight due to him, but he finds he cannot manage it. If you tax him with it you find he means he cannot afford it. Don't make him take it. For a man with a sense of responsibility a holiday on which he is thinking every minute of every ha'penny is no holiday and no rest. But on the other hand do not operate on that spur. In this type there is no particular physique; he is usually of medium build, neither tall nor short, stout nor thin. Inclined to be "toxic,' though he says his digestion and his bowels are all right.

We have, however, overstepped the bounds from the physical to the mental types. Among these latter there are two whom I advise you to leave alone if the indications for operation are at all doubtful. There is the person who makes a terrible lot of fuss of one symptom, and the one who comes to you for one, but has a terrible lot of other symptoms.

If when you suggest the possibility that the operation which has been advised by someone else may not have all the desired effect, your patient who is suffering from some given symptom—say sneezing—wrings the hands, gets up and walks about the room, and says in a despairing voice, "Then you can do nothing for me, doctor!" remember that whatever you do do for that patient, it must not be an operation. If you remove one possible cause of a symptom in the nose, another may develop; and the trouble with the patient is not so much in the nose, but in the mind which allows any given stimulant to have too great an effect on it. It is an important principle in rhinal surgery that the subjective signs must bear some relations to the objective ones, and if this relation is disturbed in either direction, operation may not be needed.

The other patient comes to you with a given symptom. It does not worry him or her much; but the moment that symptom has been discussed another one is mentioned, and hardly has that one been investigated than another arises and then a fourth in ever-widening dimensions, so that you will find yourself giving advice on a part of the body outside your sphere. Fortunately they are an easy class with whom to deal, for a pat on the back and a bottle of medicine sends them away perfectly happy until next time. They come back again and again till you begin to think yourself a bit of a scoundrel for taking their money. But you can comfort yourself by the assurance that if they do not come to you, they will go to someone else who will very likely do an operation on them, and if you see them at six months' intervals you will have to live a number of years before they have paid you a half of what they would have given the other man for an operation, the good result of which would have lasted just as long as that which accrues from your pat on the shoulder.

Well, gentlemen, there may be other noses, and there certainly are other types of owners that I have not discussed to-day. My time has not been wasted if I have made you realise that in deciding whether an operation should be done you must consider not only the symptom and the lesion, but also the nose in which that lesion lies and the person who complains of the symptom.

Correspondence.

Guy's Hospital Residents' Ball.

DEAR SIR,—The Residents have decided to hold the Annual Ball, postponed from the Spring, on Friday, October 30th, at Claridge's Hotel. Mrs. Steward has very kindly consented to act as our Hostess, and we would like to make it quite clear that all members of the Hospital and their friends will be welcome.

Further particulars, including the cost of tickets, will be advertised in the near future, when, owing to limited accommodation, an early application will be advisable.

We are, Sir, Yours very truly,

R. B. FAWKES,
President of Residents.

W. A. MILL,
Vice-President
W. S. HUNT,
Hon. Sec.
Hon. Dance Secs.

The Redistribution of Beds in the Surgical Wards.

FROM casual references in the editorial columns of the GAZETTE it may have become apparent that in the immediate past there has been a general redistribution and renaming of the Surgical Wards in the Hospital. It may be of interest, therefore, to give some account of the reasons which have led to this redistribution and of the actual results of the change.

It has been quite clear in recent years that with the growth of certain special departments more in-patient beds would have to be provided for them, as the number of beds hitherto allocated had been quite inadequate to cope with the number of patients requiring admission.

The two departments in which this growth has been most noticeable and for which additional beds were most urgently required, were the Throat and Ear Department and the Orthopædic Department, and as a result of the increase in the number of out-patients, the waiting list of cases seeking admission was very long.

The following table shows the waiting lists in the Surgical Wards, the Throat and Ear Department and the Orthopædic Department, compiled from the figures presented to a Committee in 1924:—

Department.	No. of Patients on waiting list.	Beds available.	Proportion of Patients waiting to each available bed
Surgical Wards, Office list.	236	221	1 : 1
Throat & Ear—			
Mr. Mollison	149	9	17 : 1
Mr. Layton	100	9	11 : 1
Orthopædics	490	10	49 : 1

From these statistics it was obvious that additional accommodation for Throat, Ear, and Orthopædic Patients was urgently needed.

In view of the financial condition of the Hospital, the Governors were unable to provide the necessary funds either for the capital cost of an enlargement of the Hospital or for the increased annual cost of maintenance of such an extension, and the Medical Staff, therefore, addressed themselves to the task of arranging for such a redistribution of beds on the surgical side of the Hospital that further accommodation could be provided for Throat and Ear cases and the Orthopædic cases at the expense of beds hitherto devoted to general surgery.

But other factors also had a bearing upon this problem. Throat and Ear cases had hitherto been housed in Barnabas and Ruth Wards, originally constructed for diseases of the Eye, and by reason of their lack of window space and sunlight unsuitable for septic diseases of the Throat and Ear.

That Barnabas and Ruth were unsuitable for such cases was shown by the sickness incidence among the Nurses working in the ward for it was higher than in any other department of the Hospital; also the illness arising among the Nurses was almost entirely due to infections of the Nose and Throat.

Again it was not considered desirable to make any appreciable reduction in the number of beds reserved for the admission of accidents. The King's Fund has been particularly active in the past years in impressing upon the London Hospitals the need for an adequate provision of beds devoted exclusively to accidents and Guy's is situated in a district of London which appears to produce a large number of casualties and accidents.

From evidence given before the Ambulance Cases Disposal Committee of the King Edward's Fund for London, published in March, 1924, it appeared that in 1923 the London County Council Ambulance Service brought 1,927 cases to Guy's, as compared with 1,053 to the London Hospital, 1,277 to King's College, and 1,179 to the Royal Free Hospital. No other Hospital in the L.C.C. area received 1,000 cases.

Additional accommodation had to be provided, therefore, in the Surgical Wards for the Throat and Ear and the Orthopædic cases without diminishing the number of beds reserved for accident cases, and it was necessary under these circumstances to take beds from those wards in which they were least needed.

Experience in recent years had shown that there was the least demand for female surgical beds, and it was decided therefore to provide the increased accommodation for Throat and Ear cases by reducing the number of beds available for female surgical cases.

There were formerly 196 surgical beds and 22 surgical cots in the Hospital, of which 99 were male and 119 were female. 18 beds were allocated to diseases of the Throat and

Ear, and 10 beds to Orthopædic Cases. 58 beds were reserved exclusively for accident cases, and of these 46 were male and 12 were female.

By the redistribution the number of surgical beds has been reduced from 218 to 173, the number of Throat and Ear beds increased from 18 to 33, and the number of Orthopædic beds increased from 10 to 19.

The redistribution of beds has been effected in the following manner: the wards being called by the name by which they have hitherto been known:—

Cornelius and Job have been converted into female surgical wards, each ward being shared by two Surgeons and their Assistant Surgeons. This gives 13 female beds and 2 cots to each Surgical Unit.

Astley Cooper Ward has been converted into a female Throat and Ear and Orthopædic Ward, and the beds have been allocated as follows:—

The Senior Throat and Ear Surgeon	10 beds and 1 cot.
The Junior Throat and Ear Surgeon	9 beds and 1 cot
The Orthopædic Surgeon ...	12 beds.

Dorcas has been converted into a Male Throat, Ear, Orthopædic and Genito-Urinary Ward, the beds having been allocated as follows:—

The Senior Throat and Ear Surgeon	4 beds and 1 cot.
The Junior Throat and Ear Surgeon	4 beds and 2 cots.
The Orthopædic Surgeon ...	7 beds.
The Genito-Urinary Surgeon	7 beds.

The patients hitherto in Astley Cooper and Cornelius Wards have been transferred to Lydia and Martha Wards.

The following table gives the old names of the Wards and the new names of the Wards, together with the purpose to which they were and will be devoted:—

ALLOCATION.	OLD NAME.		PRESENT NAME.	ALLOCATION.
Male Accidents	Astley Cooper	=	Dorcas	Female Throat and Ear and Orthopædics
Male Accidents	Cornelius	=	Martha	Female Surgical
Male Surgical	Job	=	Lydia	Female Surgical
Male Surgical	Lazarus	=	Lazarus	Male Surgical
Male Surgical	Naaman	=	Naaman	Male Surgical
Male Surgical	Luke	=	Luke	Male Surgical
Female Surgical	Lydia	=	Astley Cooper	Male Accidents
Female Surgical	Dorcas	=	Christopher	Male Throat & Ear, Orthopædics and G.U.
Female Surgical	Charity	=	Job	Male Surgical
Female Accident, Orthopædics and Surgical	Evelyn	=	Evelyn	Female Accident & Surgical
Septic	Patience & Samaritan	=	Patience & Samaritan	Septic

H. L. E.

Papers by Guy's Men.

Arthur W. Ormond, F.R.C.S. Visual Hallucinations in Some People.—*B.M.J.*, 1925, ii., p. 376. Discussion 379.

Hector C. Cameron, M.D., F.R.C.P. The Medical Aspects of Empyema.—*Ibid.*, p. 331.

J. F. H. Stallman, M.B., B.S., F.R.C.S. Two Cases of Cystinuria in Children, with Renal and Vesical Cystin Calculi Respectively.—*Lancet*, 1925, ii., p. 375 (Illus.).

C. H. Fagge, F.R.C.S. Tuberculous Disease of Joints.—*Clinical Journal*, liv., 1925, p. 385.

Alan H. Todd and Others. Discussion on the differential Diagnosis of Non-Tuberculous Coxitis in Children and Adolescents.—Proc. Roy. Soc. Med., Sec. of Orthopædics, xviii., 1925, pp. 31, 37.

R. P. Rowlands and Others. Discussion on the Treatment of Septicæmia.—*Ibid.*, Sec. of Medicine, Surgery and Pathology.

C. S. Lane-Roberts, M.S., F.R.C.S. Venereal Disease in Pregnancy.—*Clinical Journal*, liv., 1925, p. 373.

H. L. Attwater, M.Chir., F.R.C.S. A Case of Impermeable Stricture of the Urethra.—*Ibid.* p. 379.

Sir Maurice Craig, C.B.E., M.D., F.R.C.P. The Treatment of Insomnia.—*Practitioner*, cxv., 1925, p. 97.

H. C. Malleson, L.R.C.P., M.R.C.S., L.D.S. The Histology of Enamel Caries.—*Brit. Dent. Journ.*, xlvi., 1925, p. 907.

Reviews.

General.

The Shakespeare Memorials of London. By Wm. Bailey Kempling. With 24 Photographic Illustrations by Wm. J. Roberts. Cloth. Published by Messrs. T. Werner Laurie, Ltd., 30, New Bridge Street, London, E.C.4.

THIS volume, at once entertaining and informing, by a writer who has devoted considerable attention to the subject, is a full iconography of monumental effigies, whether statue, bust or recumbent figure, in carved stone or wood, in bronze or plaster casting. An historical record, too, of oil paintings, drawings, prints, and stained glass windows. As well as a list of commemorative tablets, laudatory phrases and emblems of every kind that may be covered by the term "memorial" in its widest sense. Anecdotes and quotations, together with Mr. Roberts's excellent photographs, illustrate the text.

Mr. Kempling's tribute adds an interesting item to the various efforts commemorating the 300th anniversary year of the publication of the First Folio of Shakespeare's Plays.

Lectures to Nurses. By Margaret S. Riddell, A.R.R.C. Published by The Scientific Press, Ltd., London. *Price* 6*s.*

MISS RIDDELL'S Lectures to Nurses have been widely read for some years, and this enlarged edition will be welcomed. They cover a great deal of ground in a most lucid and interesting way, and any probationer in training will find it most instructive and stimulating.

But this book is not, nor does it pretend to be, a complete manual of nursing. Insufficient detail of nursing procedure and technique is given to make it the one and only book that a nurse should possess. As an additional one it is well worth buying and studying.

Not the least part of its value is to Lecturers and Teachers of Nurses. They will find the arrangement of the subject matter most helpful and suggestive.

Midwifery.

C.M.B. Questions and Model Answers. Published by The Scientific Press, Ltd.

A GOOD School of Midwifery should not find it necessary to include in its list of text books this handbook. While some of its theories are harmless, the following are among its disadvantages—

1. It discourages initiative.

2. Encourages laziness.

3. Makes it impossible for teacher or pupil to know the true standard of knowledge.

4. Rules are published separately, at a small cost, revised frequently and sent free, to each successful candidate.

5. Model answers may be correct in substance, but their style is cut to pattern and give no scope for individuality.

Nursing.

Nurses' Handbook of Hygiene. By L. E. H. Whitby, B.A., M.B., B.Ch., D.P.H. Published by The Scientific Press, Ltd., London. *Price* 4*s.* 6*d.*

THERE is nothing strikingly new in this small textbook of hygiene, but it very well fulfils its purpose in supplying nurses studying for the Preliminary State Examination with just the necessary amount of matter without the inclusion of any unnecessary and confusing details. The syllabus is well covered in a direct and simple style which at the same time is not too brief to rob the subject of its interest.

The difficulty of writing on such subjects as Air and Water to students who have generally little or no knowledge of Chemistry and Physics is realised and understood, and in no case is the matter beyond the reach of the reader.

As a Preliminary Textbook this is to be recommended, and it should arouse sufficient interest to stimulate further reading on the subject.

The New Department for Treatment of Venereal Diseases.

THE Department for the treatment of Venereal Diseases, which was re-organised and considerably enlarged in the early part of last year, has recently completed its first year's work under the new conditions.

During the period August, 1924, to July, 1925, the Department has been operating as a whole-time clinic, having been open on week-days from 9.0 a.m. to 8.0 p.m., and from 10.0 a.m. to 12 noon on bank holidays.

The number of patients attended to during this period of twelve months may be seen from the following figures :—

Attendances—	
Male	16,819
Female	13,264
Total...	30,083
New Cases—	
Male	838
Female	536
Total...	1,374

The attendances for August, 1924, the first month of the new Department were 1,574; by the end of the first year the monthly attendances had increased to well over 3,000, being 3,453 in June and 3,303 in July, 1925.

In comparison with the figures for the last complete year's work under the old arrangement of separate clinics, i.e., for 1923, the great increase is evident.

	1st Year of New Dept.	Old Clinics, 1923.
Attendances ...	30,083 ...	16,488
New Cases ...	1,374 ...	972

V. E. LLOYD.

August 31st, 1925.

Sport.

Tennis.

On June 13th the 1st VI. defeated Surbiton "A" at Honor Oak Park, 6 matches to 3.

June 21st. The "First" visited Wendover to meet the Royal Air Force (Headquarters), and were beaten 5 matches to 4 after a very enjoyable match. Team: H. Lewis-Philipps (Capt.), H. Trafford, A. H. Musgrove, F. Ratnagar, A. H. Russell, J. H. Anderson.

July 1st. 1st VI. v. the Stock Exchange, at home. Lost 7—0. Team: H. Lewis-Philipps (Capt.), E. E. Neser, F. Ratnagar, V. G. Boyle, L. Parker Tupling, R. E. Peregrine.

Senior Inter-Hospital Cup Tie. Semi-Final.

On July 9th the 1st VI. defeated Middlesex Hospital at Honor Oak Park. Play commenced with Singles at 11 a.m. Result, 4 matches to 1 in our favour. One match was unfinished. The Doubles were also won at 6—0. Final result, Guy's 10 matches, Middlesex 1 match.

P. D. B. Spence was unable to assist the team on this occasion.

Singles—

H. Lewis Philipps (Capt.) beat Jeremiah, 6—1, 6—0.

D. Lurie beat Williams, 6—4, 6—1.

H. Trafford v. Hopkins, 6—4, 8—10, unfinished.

F. Ratnagar lost to Martin, 3—6, 6—3, 3—6.

E. E. Neser beat Harris, 6—2, 6—2.

L. Parker Tupling beat Van Longenburg. 8—6, 6—2.

Doubles—

H. Lewis Philipps and E. E. Neser
Beat Hopkins and Jeremiah, 6—3, 9—7.
Beat Harris and Van Longenburg, 6—1, 6—1.

H. Trafford and D. Lurie—
Beat Hopkins and Jeremiah, 6—4, 6—1.
Beat Williams and Martin, 6—0, 6—4.

A. H. Musgrove and V. G. Boyle—
Beat Williams and Martin, 7—5, 6—3.
Beat Harris and Van Longenburg, 6—4, 6—8, 6—0.

Hospital Information, etc.

Pass List.

Society of Apothecaries of London.

August, 1925.

Surgery.

*H. A. Herbert.

Conjoint Board.

Final Examination.

July, 1925.

Medicine.

*H. M. H. Ashwin.	*C. J. Wylde.
*A. B. Plant.	*E. G. Smallbone.
*G. T. Hankey.	*B. E. Hawkins.
*J. R. Ratcliffe.	*J. A. Simons.
P. F. S. Court.	*L. Davies.
*A. Simpson Smith.	*H. E. Lewis.
E. Sorabjee.	*C. B. Andrae.
*A. C. Copley.	*H. Trafford.
*R. W. Edwards.	J. W. Shackle.
J. Wiseman.	J. Evans.
*W. B. Norcott.	*F. R. Dingle.

Surgery.

P. F. S. Court.	*A. C. Taylor.
*A. Simpson Smith.	*H. E. Filmer.
*A. C. Copley.	*H. G. Davies.
R. E. Smith.	W. R. Kirkpatrick.
J. K. G. Way.	H. P. Yew.
I. A. Jackson	*B. Kornblum.
A. R. Cox.	L. E. Houghton.
W. S. Grove.	E. N. C. Annis.
W. G. Porter.	P. C. Cumber.
D. W. E. Lloyd.	W. H. Dowell.
*E. Jones.	A. F. H. Stewart.

Midwifery.

*A. Simpson Smith.	*C. H. Highfield.
*A. C. Copley.	A. T. Curnow.
W. D. Sheldrake.	R. Evans.
R. E. Smith.	D. H. Couch.
J. K. G. Way.	C. E. Allen.
C. E. H. Moykopf.	J. C. T. Tregarthen.
I. A. Jackson.	*O. F. A. Krause.
W. Mayne.	J. D. I. Rear.
S. Clazen.	

*Have now completed the examination.

Publications Received.

Medical Journal of South Africa, The Nursing Times, The University College Hospital Magazine, The St. Thomas's Hospital Gazette, The Prescriber, The British Journal of Dermatology and Syphilis, The Dental Record, The St. Bart.'s Hospital Journal, British Medical Journal, The Hospital Gazette, The Antiseptic, The Indian Medical Journal.

Notices.

Surgical Out-Patients.

From September 15th Surgical Out-Patients will be seen as follows :—

Mondays—Mr. Slesinger.
Tuesdays—Mr. Davies-Colley.
Wednesdays—Mr. Ogilvie.
Thursdays—Mr. Hughes.
Fridays—Mr. Bromley.

Fracture Department.

From September 22nd, 1925, onwards, Fracture Out-Patients will be seen on Thursdays (except Thursday, September 24th) at 1 p.m., instead of on Tuesdays, as at present.

Specialities.

MESSRS. GENATOSAN, LIMITED, LOUGHBOROUGH, LEICESTERSHIRE.

PURITY in drugs is essential, and we have pleasure in drawing our readers' attention to Genasprin and Cystopurin, both of which have been submitted to the most searching tests with very satisfactory results.

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Cystopurin is composed of a double salt of hexamethylene-tetramine and sodium acetate, it is a non-irritant and valuable in the treatment of genito-urinary disorders. It is equally effective whether the urine is acid or alkaline, and therefore can be used with confidence in all cases where its treatment is indicated.

Births.

CARTWRIGHT.—On Sept. 7th, 1925, at "Burmage," Kew, Surrey, to Gwendolen, wife of Leslie M. Cartwright—a daughter.

DEAN.—On Sept. 4th, 1925, to Dr. and Mrs. Christopher Dean, Kimbolton, Hunts—a son.

Marriage.

CARSON—PHILLIPS.—On June 9th, 1925, at Trinity Church, Cornwall, Ontario, Canada, Charles Oliver Carson, M.R.C.S., L.R.C.P., of Westfield, Lydney, Glos., son of Ven. Archdeacon and Mrs. Carson, of Morrisburg, Canada, to Lillian, only daughter of Mr. and Mrs. G. R. Phillips, Cornwall, Canada.

ED.—C. R. E. F.

GUY'S HOSPITAL GAZETTE

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PASSIM

Salvete, ad portas nostras, o hospites amici.

NEXT week brings October.

October is a most impressive and important month. Impressive because even the most casual observer cannot fail to see about him some fulfilment of the labours of the springtime; the gathering of the crops according, partly to our sowing, and partly to that incomputable but obtrusive entity which for want of a better designation we term Chance, Good Fortune, Luck, as you will; but even more impressive, though less apparent, are the preparations which will make possible the repetition of those labours when occasion shall once more demand. Important, since these preparations include the heralding of the commencement of a new academic year.

It is at this season of the year that we cease to reflect upon the feats and misfortunes of the past twelve months, the "might have been" but for the fickleness of chance, and turn our attention to the trials and problems which beset us with another year.

At this time also, according to time-honoured custom, the GAZETTE, in an attempt to be worthy of its honourable position as the students' spokesman, publishes a Special Students' Number in order to welcome the Newcomer, and assist him in his protean yet sympathetic environment.

This is it.

It is with considerable diffidence that we approach our traditional duties. First, because in extending to you in the name of all connected with Guy's Hospital a hearty welcome, we know not whom we welcome. Amongst you may be a great philosopher, a future Dean, or even an Editor of the GAZETTE. Each year takes its toll of old Guy's men, great and small, and you, sirs, are called upon to take their places, to carry on their traditions, and to be worthy of the name of Guy's which for two hundred years they have striven relentlessly to make respected in every corner of our universe. This year has taken a particularly heavy toll; therefore the time is nigh for reaction. Secondly, because we are too acutely conscious of our meagre qualifications to offer sound advice. On other pages you will find set before you by others of far greater skill and authority than ours, the wisdom of experience, to be gained only by many years at Guy's. We must be content with the attempt to tell you something of your future life from the students' point of view. We must attempt to be young again and remember the time when we, too, were hurriedly and suddenly hurled from another phase of life.

Leaving school we feel is the first disappointment in life. The transition from a phase of irresponsibility to one in which you will meet at first overwhelming responsibilities is necessarily in some respects unwelcome. From now until the end your future will depend upon the deed of to-day; some of you may meet good fortune, unexpected opportunities may arise, you will find yourself abandoning the old tenets and fast becoming an opportunist, if you use your opportunities to the common good your public school ideals will have done their duty.

Some of you will have achieved honour and dignity at school. May the senior prefect be spared the indignity of the juniors' observation as he is precipitated upon the platform with his baggage at a large London terminus! Here there is no respect, no help save that he may

hire, no welcome such as is the due of the Captain of the School. You will have recovered from this shock and commenced to make your real worth felt.

We congratulate you on the determination which has carried you through this cataclysm and brought you into the profession of medicine. We wish to avoid the usual platitudes about the platitudes of medicine, and the nobility of impulse which carries our youth into its well decorated ranks. Suffice it to say that if an overwhelming desire to heal the sick were an essential attribute, those ranks would yearly be depleted of hundreds of the best type. Equally shall we admire your discrimination should you discover that you are a round peg in a square hole. Do not hesitate, give up before it is too late; yours will not be the first life that has evaded ruin in this manner.

Your observations on that seething polity your school will have taught you that mankind may be divided into three classes: Those that work hard, but do not play hard; those that play hard, but do not work hard; and those who both work hard and play hard. The first is initially pernicious, rapidly becoming vicious; the second lamentable, but not intolerable; to the last we hope that you already belong, if not we exhort you to enroll. Guy's has no use for those who come to do their bare duties and then depart. Such conduct provides only for the maintenance of our present state—we must progress! Practical science is not our only achievement, we have many others. You may not have time to meet students from other colleges, or join in some movement of broader compass, devoted to the social welfare of our civilisation, but it is plainly your duty to join in the social activities of the hospital. We expect to hear your voices not only at the meetings of the Physiological Society, whose time is devoted very largely to the consideration of social questions, but also at the Musical Society's concerts. We are equally jealous of our good name in sport. Notices of the activities of the respective Clubs are to be seen in our columns and in the Colonnade; do not wait to be invited, seek out your team's secretary, pester him, goad him until you get a game.

In so vast a place you must make mistakes, not the least common of which is an inadvertent visit to the Nurses on your first morning in the Park. Beware also of prejudice, you will learn slowly that nothing is exact, and that stability depends upon a multiplicity of equilibria; you will meet many men of many races, treat them all with respect, remember that in common you seek after Truth.

During your first year you will not be worked too hard, turn a deaf ear to those who will "get it all up in the last month"; you may be free of the discipline of school, but you have not yet gained "freedom at last." Throughout your career you will be faced with physico-chemical problems; you will rejoice when later you discover that "the tautamerism of the uric acid molecule" can be responsible for the ravages of gout!

You will have learned the value of that self-aggrandisement, amounting also to honest enmity, which characterises the Modern's view of the Classical. In the Anatomical Department you will be in constant danger of rustication for life; should this be your fate you will take sanctuary in the Physiological Department and from that stronghold emit crude perversions which will fail to rise the thirteen steps to the Anatomical Department, and fall like damp squibs amongst the dust-bins there to achieve oblivion. Whatever the relative merits of structure and function, they demand an equal share of your time and thoughts.

In the fulness of time you may have become once again a scholar, well grounded in the principles of Science. Then you will pass into the wards. Here again you will suffer an upheaval. You will be called upon to manipulate trolleys which disobey all the laws of mechanics, to run errands which apparently are useless, but which routine demands, to undertake chemical analyses of momentous importance, by tests you have spent two and a half years in rendering delicate, and sensitive in adequately equipped laboratories, with unclean test tubes and a spirit lamp, whose fuel is specially distilled and adulterated till finally it has a minimum Heat of Combustion. Do not despair; out of such technical difficulties Guy's has risen, you must follow in the wake.

Swiftly you will react, you will recall the team spirit of your earlier days, you will bow to the will of your House-Surgeon, to whose will indeed the Hospital bows, and commence to "play hard" for your firm, which must always be the best, and in this new team you will meet a new and at first uncertain quantity—the nurse. You will swiftly learn to respect your new partner, and some day, perhaps, you may have the honour of her attention to a mildly septic finger. Once warded

you will for ever wonder how fairly to divide the merit of the recovery of your patients.

You will meet that difficult quantity the great clinician; he is very human, but ready always to confound his colleagues. You will hear a famous surgeon explain away the physician's *bonne humeur*, on the pretext that "he never receives a night call, that he has nothing with which to reproach himself, save perhaps that he did not call in a surgeon earlier, or, even more probable, that he called in a surgeon when it was not necessary. He may well be such a nice fellow." You will wonder whether age and experience have transmuted the youth, or merely masked the boy still latent within him.

Then, again, the immutable ward sister, with many years of happy and contented service to her credit, whose sympathy and patience are unbounded, but whose respect for the ward clerk is conspicuous by its absence. Some day you may realise what a fool you must have been, and how well deserved her contempt! Some day also she may realise the futility of unsolicited opinions.

You have not yet begun to live. Once in every month your firm will do its "take-in"; then you will live for 20 hours every day, and may sleep the other four. You will pass through the Dresers' Room. Here many queer sights are seen, and strange words spoken. It is, indeed, the very hub of the Medical Universe; there you will live making your own meals, arguing, chaffing, wondering the while how best to crowd your time. Recently, it is said, that here some unbalanced individual actually commenced to make his own clothes. How true we cannot say; the strong room is untenanted. You will marvel that the world outside is not caught up in the whirl you live in; and if by any chance you race on an urgent errand only to be stopped by the inflexible will of a Sister who wishes irreverently to tell you the laundry has not arrived, do not laugh your contempt of laundry, and chafe at the waste of precious moments; remember that next week you,t oo, will have come down to earth, and wordly things, you may be annoyed at the ironing of your handkerchiefs ! !

By this time your plasticity will have reached its maximum; you will slowly and surely resolve into a typical Guy's man, and later, whether within his walls or without, you will not find it beyond you to be a credit to his name.

Lastly, do not work too hard; take as much fresh air as you can, and above all, do not worry—it may not happen!

Good Luck! We are glad to have you join us.

We would remind our readers of the address to be given to the Medical School by Major Beith ("Ian Hay"), on Tuesday, September 29th, at 3 p.m. The subject of the address is "The Human Touch in Professional Life." A limited number of tickets are still available for visitors; applications should be made at once to Mr. Winston in the Medical School Office.

The Rugby Football season has commenced. On Saturday last we met our old friends Catford Bridge in the initial game of the season. Though we did not beat them by the substantial margin to which we are accustomed, we have won our first match, and hope to do better in the near future. Our best wishes go with the team to Coventry to-day.

We regret to announce the sudden death of Dr. Albert Churchward in his home at South Norwood, on Friday, September 4th. Dr. Churchward was a man of considerable energy and ability. His writings on scientific subjects are well known, and his death is lamented in many scientific circles. He is best known for the simplicity of his theories and his supreme contempt of critics. He was a keen student of Freemasonry and wrote several works connected with that cult. His inventive mind improved the bicycle, and also armour plating. He leaves a wife and one son to whom we extend our most sincere sympathy in their bereavement.

On another page we publish a letter from the secretary of the Biennial Dinner. This will be held on Friday, the 16th October, at 7 p.m., at the Connaught Rooms, Great Queen Street, W.C., under the Presidency of Sir A. Fripp, K.C.V.O., C.B., M.S., F.R.C.S.

All students, past and present, are invited to attend, and forms of application may be obtained of Mr. W. J. Curry, at the Counting House, or the Wills Librarian. Dinner Tickets should be obtained at once, price 14s. each, exclusive of wine.

We expect to see many of our contemporaries present on this occasion.

By Way of Introduction.

BY F. J. STEWARD. M.S., F.R.C.S., Senior Surgeon, Guy's Hospital.

A SHORT time ago I took a non-medical friend round some parts of Guy's. He knew little of hospitals, but was much interested in what he saw. As we parted he remarked, "Guy's is a great place."

Very well said, I thought, for Guy's is surely a great place in many ways.

It will strike you who are new to it as great in size in the first place, for well I remember this feeling when I first joined. The size of the place was rather bewildering even at that time; and the additions and extensions since then have been many.

Great, too, in its past history, as you will soon realise when the names of some of the famous Guy's men of the past and some of their doings become known to you. Sir Astley Cooper, perhaps the greatest surgeon of his time, whose statue you may see in St. Paul's Cathedral, and near by it the statue of a noted Guy's physician, Dr. William Babington, the only other member of the medical profession thus honloured; Hodgkin, the founder of the Guy's Museum, best known by the disease that bears his nage; Bright, whose name of the kidneys; Addison, who discovered Addison's disease and also first carrectly described the pathology of pneumonia; Benjamin Bagington, who invented the laryngoscope; Hilton, Gull, Wilks, Moxon, and many others.

Great also in sport. Here, again, Guy's has always more than held her own. Go into the Students' Club and see for yourselves. Look at the Cups there and study their records, and think for a moment what they mean.

But greatest of all is the spirit of Guy's, or as J. M. Barrie would call it, the "something," to which everybody and everything connected with Guy's, both past and present, in some degree contribute. It is ever present, and working unseen like leaven, it makes a Guy's man of every student who comes here.

Thus something of the place in which you have elected to work, what of the work you are going to do there? A study of the medical curriculum—and all should study it carefully—is liable to be rather a shock. There are so many subjects to be grappled with, so many attendances to be kept, so many appointments to be held, that the time available seems to be all too short, and the whole thing somewhat terrifying. But there is really no need for pessimism, for the work laid down and the standard of knowledge required are well within the capabilities of the average student, as is clearly proved by the fact that the vast majority are able to get through the work in a reasonable time.

As regards method, you will do better to emulate the tortoise rather than the hare, for regular systematic work even in quite small doses will serve you far better than will long dormant periods followed by feverish consumption of midnight oil at the approach of each examination.

Examinations, of course, have to be passed and are useful milestones, but in many respects may be classed as necessary evils. Do not allow them to loom too large, however, and thus to interfere too much with your real work which is to endeavour to acquire the knowledge and skill needed for the successful exercise of your profession.

In conclusion, I would say to every new student, bring your best and all your best, both in work and play, and remember that Guy's is generous, and the spirit of Guy's awaits you, so that however much you may bring, in the end you will not be the loser.

To those Entering the Wards.

By M. E. SHAW, M.D., Senior Medical Registrar.

WHETHER rightly or wrongly, the medical curriculum is divided into two very clearly defined periods—the pre-clinical and the clinical periods. It is to those who are shortly to embark upon the latter that the Editor has bidden me address a few words of encouragement and advice. A hopeless affair this seems to me, for you, who are shortly to become ward clerks, are in no need of encouragement and are little likely to heed such advice as I can give. But although I am fully aware that my words will not be taken over seriously, I am fortified to fulfil the Editor's bidding by the thought that perhaps, in years to come, some of you may recall a phrase or two of what I now write and shed a tear over the scant attention you paid to it. At any rate I am not one of those who write with the authority of great age; one of those whose student days are so far removed that they have forgotten what it felt like to be a ward clerk and who, in the passing of the years, have seen their doubts and difficulties melt before them to such a degree that they now no longer appreciate the difficulties of others. It is little more than six years since I stood myself upon the threshold of the "clinical period" and the memory of it is yet green. My advice to you is simply the result of those six short years of experience—years which, as you will find—pass by as if the years were months and the weeks days.

In the first place I would ask you to beware of specialists and specialisms. By this I do not mean that specialists are in any way undesirable persons for you to become acquainted with. Far from it. They are, on the contrary, exceedingly amiable gentlemen and you will find them wise teachers and firm friends. It is rather the fact of their existence that you should view with caution. You are about to start the study of medicine and medicine can be roughly divided into two halves, diagnosis and therapeutics. But do not therefore be led into thinking that it is the business of the general practitioner to be able to diagnose only those diseases which are not already included under one or other of the so-called "specialisms." If you fall into this error there will be nothing left for you to diagnose. In the same way "surgery" and "medicine" are entirely artificial and arbitrary divisions. Strictly speaking, surgery is a branch of therapeutics. It is a handicraft as its name implies. But the surgeons are more than mere craftsmen. They are medical practitioners as much as anybody else and as such are, or should be, capable of diagnosing all manner of different complaints. They have simply specialised in that branch of therapeutics which requires manual dexterity—the art, in other words of adapting the anatomy of the patient to suit the changed needs imposed upon him by disease. In the same way a physician is mainly engaged in adapting the patient's physiological processes to the altered requirements of various pathological states. As medicine becomes more complex the need arises for surgeons and physicians with special skill in certain forms of operation or certain kinds of disease. But you who are starting must become first specialists in *everything* and later, if you wish it, specialists in *something*. This sounds like a paradox. It is. But none the less it is true.

I said just now that diagnosis and therapeutics were the main branches of medicine. This is true, but you must not think that other branches are unimportant. The practice of either is impossible without a sound knowledge of pathology which tells us the nature of morbid processes and gives us knowledge of the causes of disease. In practice prognosis may become an exceedingly important branch of medicine. But as far as your immediate work in the wards is concerned you will be mostly engaged in the study of diagnosis and therapeutics. Let us therefore consider each separately.

To be a successful diagnostician you require three things—sound observation, accurate deduction and wide knowledge. These are precisely the same faculties as are required of a good detective and indeed medical diagnosis and criminal detection have much in common. You must first of all observe all the facts. Then you must make deductions from these facts based upon your knowledge. The power of observation varies greatly in different individuals, but can be acquired by all. There-

fore train your powers of observation in every way possible—not only in the wards but out of them as well. Become detectives in every walk of life.

The deductive faculty is less easily acquired, but it depends to a large extent upon your knowledge. Therefore be sure that in the sphere of pure medical knowledge you are well equipped. In order to acquire knowledge do not place too much reliance on books. Text-books are only useful as works of reference. By means of books you can fill in the gaps in your learning and you can verify and amplify what you learn in your practical work. In effect the wards must be your text book and the patients its pages. The Hospital contains about 600 beds. Thousands of patients will pass through during the 3 years or so that you spend in clinical studies. You cannot see every case but the more you see the easier and quicker will be your acquisition of knowledge. Do not imagine that because you are each allotted certain beds that you are forbidden to look at other cases or to enter other wards. See every patient you can whether "surgical," "medical" or "specialist."

Therapeutics is the art of healing. The surgical method is sufficiently obvious and for this reason usually more attractive to the student. Medical therapeutics is more obscure, more difficult to follow and often less satisfactory in its results. It is a common complaint that "treatment" is insufficiently taught in the medical wards. If it is a just complaint it is a just retort that nothing is ever done to prevent anyone from learning treatment. Somebody once perverted the Hospital motto to make it more applicable to a medical school and said "It is more blessed to learn than to be taught." If you will take the trouble you can learn a great deal about treatment in the medical wards. Make friends with the House-Physician. He is responsible for the treatment and will tell you what is being done and why. Whatever you do avoid the fallacy of supposing that if you sit still and do nothing everything will be taught you. You would very possibly learn more if there were no teachers in the Hospital at all.

One of the disadvantages of the division of the curriculum into clinical and pre-clinical periods is that the early years are in one respect a poor preparation for the final ones. Hitherto you have been dealing mostly with inanimate objects. An occasional dog-fish or rabbit or even a decerebrate cat is a poor substitute for a human patient. Although it may sound a superfluous warning I would ask you to remember that patients are human beings. It is usually after the first six months or so of ward work that this reminder is most necessary. At first the novelty of the work and of the patients is sufficient, but later one is apt to consider a patient simply as clinical material and to forget that they are exceedingly sensitive, and often very sick, fellow beings. When you start in practice your success or failure will depend as much upon how you impress the minds of your patients as upon how you cure or kill their bodies. Therefore an important part of your training is learning how to deal with patients as individuals quite apart from the diseases from which they are suffering.

Before leaving you "with these few precepts in my memory" I should like to add a few words on certain aspects of your work which, though not carried on in the wards, are a necessary complement to an intelligent study of clinical medicine. First, the Post-Mortem Room. Never miss seeing the autopsy on a patient whom you have seen alive. It is the most valuable experience in the whole of medicine. And, further, see all the autopsies you can whether or not you have known the cases in the wards. Half an hour every day in the P.-M. room is half an hour about as well spent as it could be. Secondly, do your utmost to learn and understand pathology in all its branches. It is the key which opens the secret cupboards of clinical medicine. Third, the Museum. Make a resolve to know every specimen and every wax model in the Museum before you go up for your final exam. You won't keep your resolution but you will be the better for having tried and failed. Above all make use of the skin models. They are quite unique and criminally neglected by students. You can acquire a sound working knowledge of skin diseases without even visiting Dr. Barber's out-patients. You can see all the rashes of the common exanothemata without ever going near a fever hospital. And yet men who have spent six months in the medical wards tell me they don't know what the rash of scarlet fever looks like, and seem, indeed, rather to resent being asked!

And now I must leave you to your wards confident that you will enjoy your work and neglect my advice.

The Medical Student's Life: Pre-Clinical Period.

By Professor T. B. JOHNSTON.

THE choice of a profession is one of the most important problems which a young man is faced with when the time comes for him to make up his mind what his life-work is to be. A very large number of factors come into play to affect the ultimate decision, and it is only a relatively small proportion of the men entering medicine who are irresistibly drawn to it for its own sake. It is not surprising that, in the cases of those men whose personal wishes have not determined the issue, there should be a certain degree of apathy discernible at first. But however apathetic a man may be at the outset, it is not long before he feels the fascination of the work growing upon him, and by the time he enters the wards and begins to assume responsibilities for the care of patients, keenness and enthusiasm have come to him. In medicine, even more so than in any other profession, a man must have keenness and enthusiasm if he is not to become a slave and drudge.

It is unfortunate that the first year of medical study is apparently lacking in the human interest. Many medical students rather tend to regard their Chemistry, Physics and Biology as an unnecessary burden, handed down by tradition and having little real bearing on their future work. No greater mistake could be made. It is impossible to emphasise too strongly how essential it is for the student to have a thorough knowledge of the general principles of these subjects, if he is to derive the full benefit from his subsequent studies. Living processes, whether physiological or pathological, obey laws of chemistry and physics. Empyricism in medicine has had its day, but it is dying hard. The more fully chemical and physical principles are worked out for and applied to living processes, the sooner will empyricism disappear for ever.

No one wishes to check the desire of the student to reach the more obviously human interests of Anatomy and Physiology and, indeed, every encouragement and opportunity are given to him to complete his preliminary scientific studies within the period of his first academic year. "Well begun is half done" and the man who clears his first hurdle at the first attempt, never looks back during the rest of his course. It is, unfortunately, true that the "cramming" of a mass of facts or theories may get a man through an examination, but unless he has a firm grip of the general basic principles it would have been much better for himself had he been rejected.

Admission to the dissecting room and the physiological laboratories marks the commencement of the second stage in the life of the medical student. Henceforward his work possesses an obviously human interest which very rarely fails to attract, but, despite their attractiveness, Anatomy and Physiology can only be mastered by whole-hearted effort and continuous industry, and mastered they must be if known facts of structure and function are to become so familiar as to be of real practical value, not only for the final period of student life, but throughout the subsequent career. Without a sound knowledge of Anatomy and Physiology it is impossible to deal with patients in a scientific manner. But the labour expended on these subjects produces other and equally important results. Powers of observation are trained, dexterity of hand and finger, in a greater or lesser degree, the power to criticise, to sift and weigh evidence—all these are acquired, not with the aid of the midnight oil, but subconsciously as the ordinary routine work is faithfully carried out. In this way true education results from a medical training and a wider mental outlook is obtained even before the clinical period is entered.

Eight terms are allotted to the pre-clinical subjects, and only a small minority of students spend more than nine terms in the school before they complete the second examination and are allowed to commence their clinical studies. In these eight or nine terms, as the case may be, the student's time is fully occupied, but there is ample opportunity both for mental and bodily recreation. Every man who is physically able to do so, should take up one winter and one summer game, for no medical student can do good work who is not thoroughly fit, and, from the very character of his work, no medical student can hope to keep fit unless he takes his exercise in a regular manner.

Abler and more experienced pens than mine tell of the clinical period which forms the third and last stage in the life of the medical student, and they describe the additional qualities which are acquired in the wards. Those for whom these lines are written have only recently entered Guy's, but although their clinical work seems to be still far distant, I can assure them that it will not be long before they begin to appreciate its atmosphere, and to feel that the title "a Guy's man" carries with it a certain responsibility to the past for the maintenance of a tradition, firmly established and admirably expressed in the words "Dare Quam Accipere," which tell of the unselfish service in the past and in the present, and which must be our inspiration for the future.

To the Dental Student.

EQUALLY with his medical confrère we offer the new Dental Student a cordial welcome.

His early perusals of the syllabus indicating his course of study may at first dishearten him, but let us assure him that steady work will realise success and allow ample time for relaxation. Per contra, an endeavour to crowd a day's work into two hours or less will lead to disaster and trouble with the powers that be.

Some of the subjects required by examining bodies may appear redundant, but an ever-widening knowledge is essential for success in all walks of life, and dental surgery in its widest sense is daily becoming more intimately related to surgery, medicine, physics and chemistry.

Every student should remember that beyond the duties owing to himself, he has a big duty to perform in upholding the good name of the Hospital, and these obligations being faithfully carried out, the years spent here as a student will ever remain a happy retrospect.

In recreation, whatever his tastes, the student will find companionship in the large community of his fellows, and as a member of the Clubs' Union he can take part in any branch of sport he desires.

The Hospital is justly proud of its students and their high reputation. We therefore do not hesitate to tell the new student that he is and always will be a Guy's man, whether inside or outside the Hospital.

H. C. M.

Obituary.

"TIM."

"In perpetuum, frater, ave atque vale."

THE familiar sobriquet was bestowed upon him in his infancy and remained his usual name throughout his life, to the exclusion of the three names with which he had really been endowed: Reginald, Maurice, Henry. The nickname had not the least connection with any of these, and he used one of them, Henry, in his signature; it was a tribute of affection to his father, who bore that name.

It was hard for those, who first knew him in his hospital days, to realise that, as a young boy, he had spent nearly a year on his back to correct spinal curvature. The treatment was completely successful, for to see him in the buff was to see a perfect example of a young Hercules. He rejoiced in his strength, and was always pleased to give examples of his very exceptional vigour.

It was not only in his physical development, but in some mental attributes that he suggested a likeness to Richard the Lion-Hearted. Like his prototype, he was most intensely fond of music, and was for many years a constant attendant at the Opera. He knew most of them well, and was a deep and sincere admirer of Wagner. He would sit absolutely enthralled and would resent any interruption in the form of an attempted conversation. He was not a performer on any instrument, and his voice

was most notable for its strength and volume. The energy he threw into singing the National Anthem was so remarkable that even at big gatherings men would leave off singing themselves in order to listen to his pervervid rendering.

His love for children was most profound, and it was returned to him in full measure by all the children he came across. A promise to a child he held to be really a sacred thing, and once given he would allow nothing to interfere with the carrying out of that promise however much the proposed substitute might appeal to him.

"Rugby" may justly be said to have been a passion with him. He came up to Guy's in 1880 with a reputation earned at Wellington, the school of which he was proud to have been a member and which held a very big place in his affections. He promptly played for the First, becoming the Honarary Secretary in 1883 and "Skipper" in 1884. He loved the game as a game, and he believed that its discipline was altogether wholesome. To his very great regret Guy's did not win the Cup under his Captaincy. When his Cup days were over, Blackheath were very glad to enlist his services. His interest in the game persisted, and he very seldom missed putting in an appearance at Honor Oak Park when a "home" match was being played, as well as the Cup matches at Richmond.

The Beckenham Football Club owed a great deal to his fostering care as its President, and had risen to a high place when the Great War drove it under.

He settled in Beckenham in 1888, and he very soon made himself a very active and vivid force there in many ways. After two or three years he was persuaded to take part in the local affairs as a member of what was then the Beckenham Local Board, which became later the Beckenham Urban District Council. This work interested him very greatly, and he gave it his best. His colleagues soon realised that he was—

"One who never turned his back, but marched breast forward,
Never doubted clouds would break,
Never dreamed, though right were worsted, wrong would triumph,
Held we fall to rise, are baffled to fight better,
Sleep to wake."

He was Chairman of the Council twice in the course of his membership of it. His love for children was soon manifested in the unwearied and inexhaustible attention he devoted to educational matters of all kinds.

In his public work, as in his professional, he never spared himself; so much so that in 1920 reasons of health compelled him to give up most of the former altogether. It was a decision which gave him very great grief, but he recognised that it was the right and proper course; in fact, the only course he could take with any hope of remaining at work. At a remarkable town's meeting substantial recognition was made to him and speakers representative of all sections of the community bore witness to the great affection in which he was held.

His reputation as a professional man was rightfully and deservedly high and his advice and counsel were frequently asked for by his fellows. He devoted untiring service to the Beckenham Cottage Hospital, and was largely instrumental in bringing about the very material improvements which have rendered it capable of much greater service than formerly, good as its record is of work well done.

His life was a full one, and he enjoyed every bit of it. He loved the profession, of which he was proud to be a member. He loved work, as was fully manifest in whatever form of it he engaged, and he loved play, whether on the links, as in later post-footer years, or at the card table. He played the game all round with Herculean vigour.

And when Thyself with shining Foot shall pass
Among the Guests, star-scattered on the Grass,
And in thy joyous Errand reach the spot
Where I made one—turn down an empty Glass!

Change of Address.

J. H. D. Myatt, L.D.S., R.C.S., 6, Stoke Road, Shelton.

H. A. Clarke, L.D.S. 24, Bury Street, St. James's, S.W.

Dr. Alan McKenzie, c/o the Standard Bank of South Africa, Mevanza, South Africa, via Mombassa.

W. L. Benson, L.D.S., 97, High Street, Berkhamstead, Herts.

Publications Received.

The Nursing Times, The British Medical Journal, The Medical Review, The Broad Way, The King's College Hospital Gazette, The Long Island Medical Journal, The Address read before the Annual Conference of the Industrial Welfare Association, W. and G. Foyle's Catalogue of Second Hand Books on Sport and Physical Culture, The Architectural Association Journal.

Medical Education.

Paper read before the Physical Society by M. McBAIRD, M.B.

Mr. President and Gentlemen—

EDUCATION of every sort has for a very long time been a thorn in the flesh and a bone of contention for responsible members of the community, and medical education is no exception to the rule. Not very long ago a long series of letters from indignant parents and irate schoolmasters appeared in one of the leading daily papers dealing with the cost of education during certain phases of the young man's career. Like the Irish question, the problem of what we are to do with our sons, when we get them, is always with us. Someone is always bursting into print having found the one and only difficulty and the one and only solution, but things change slowly, and, as a whole, go along very much as they were before. Therefore one hesitates before advocating too much reform in our methods of medical education, partly because it is, without doubt, a subject of much complication and many difficulties, and also because one knows that such a puny blast can have practically no effect on the stone walls and girded towers of usage. Nor do I wish to be understood as upholding any radical or rapid changes or as preaching a Phillippic against methods of medical education as altogether bad. It would be poor policy to pull down your house before you have another ready to move into. I think certain changes are inevitable; that they would be for the better and ought to be hastened by all the means in our power.

In the dim distant past medicine was not a thing apart, but was mixed up with religion. In ancient Egypt it was the priests who possessed the medical knowledge and skill, and they passed it on from one to another. It was a part of the spirit theory of the causation of disease that the leader or medicine man of primitive peoples was also the healer of diseases by means of spells and charms. Later on, in civilisations such as that of ancient Greece, the physicians were philosophers, and endeavored to get at the nature of things by a process of reasoning. Their practical medicine was fairly good, but it was based on a theory evolved from premises which were hypotheses and admitted of no proof. Hippocrates was the first man consciously to introduce a scientific principle into medicine so far as we know. He recognised that medicine was an art, but what he said in effect was, "You may think until your head aches; you may talk yourself black in the face, but the only way in which we will go ahead in the art of healing is by observing the effects of diseases on people and the effects of our treatment." He introduced the scientific principle of observation. With the growth of various sciences, such as mathematics, physics, chemistry, astronomy, anatomy, physiology, and pharmacology various other principles were introduced, viz., the formulation of conclusions from observed facts and the putting of those conclusions to the test by the experimental method. Medicine received contributions of fact and principle from these sciences as they advanced, and that is why we speak to-day of modern scientific medicine.

If one considers the chemicals, the drugs, and the instruments of precision used nowadays in medicine the fact that practically all the sciences are Handmaids of Medicine is perfectly obvious.

But it is also perfectly true that medicine is fundamentally an art and not a science. There are few of us who would like to be treated by a superman who knew all there is to know up to date about all the sciences. His principles might be alright, but ten to one his practice would be all wrong. One could not trust him to tell a case of pneumonia from appendicitis. He would be hopeless at physical signs, and would probably antagonise the patient at once by regarding him as a specimen on which to do experiments. The practice of medicine is nowadays impossible without a grounding in science, but much more than science is required. One must acquire a great body of empirical facts which as yet have no scientific explanation, or at any rate, no proven explanation. Also there are many more subtle things in medicine such as sympathy, personality, and knowledge of human nature which are not reducible to scientific formulæ, however hard the psychologist may try. In the sciences one is accustomed to regard a question as capable of a definite answer "Yes" or "No," but medicine is largely a matter of probabilities; many of our questions are incapable of being answered at the present time with the knowledge that we

possess. Science is a matter of proof, medicine one of judgement. If you doubt this you should read the story of how Galen made his reputation in Rome about 1800 years ago. Galen, though his science was rudimentary, was a fine diagnostician and could give an accurate prognosis. He was called in to see the Emperor who, all the other physicians thought, was suffering from a touch of ague. Galen diagnosed correctly indigestion due to overeating. His treatment was so efficient that the Emperor, exclaiming, "There is only one physician and his name is Galen," appointed him Physician to the Royal Household on the spot.

Now all this preamble may seem to have but little bearing on the subject of medical education, but in my opinion it is this duality of modern medicine, the clash of the science with the art, that causes a majority of the arguments about what the student has to learn. The clinical man and the pure research man are always at loggerheads. The diversity of opinion as to the proportions in which the two elements must be mixed is seen in the diversity of the details of medical courses all over the world. This diversity is so great that one must be content to consider the system one knows, viz., that which prevails in this country. Even then there is much lack of uniformity, each examining board having its own particular regulations.

The primary object of a medical education must surely be to produce doctors, and as by far the greater number of doctors are general practitioners it seems that the best education is that which produces the best general practitioner. But that is not all, for it is evident that if all medical men were busy general practitioners there would be nobody to make new discoveries in the sciences allied to medicine, namely, physiology, pathology, and pharmacology, nor to teach these subjects. I have seen it stated in medical journals by high authorities that the British G.P. is the best in the world, pointing to the conclusion that the system by which he is educated is the best in the world. Whether this is a piece of Coueism on the part of the powers that be, or merely a compliment to the Briton on his wonderful power to succeed in spite of difficulties is not quite certain.

My first quarrel with the present system is with regard to the subject matter of the ordinary medical curriculum which it is necessary to study to become a qualified medical man. Of course, there is no subject a knowledge of which would not help a doctor sometime or other, and it would be ideal if we could make all our G.P.'s into Leonardo da Vinci's, experts in all the arts and sciences. Let us presuppose a reasonable general education before a student starts on medicine at all, so that at 17 or 18 he commences professional work. He cannot finish at present before the end of five years, or perhaps even six or seven if he takes a university degree. It will soon be six years even for a diploma. What this really means is that a man must go to school for anything up to twenty years before he is able to commence getting practical experience of his job in life. Sir Charters Symonds, in his Harveian Oration of 1921, laments the growing burden of work which is being piled on the wretched medical student, a burden which is becoming wellnigh intolerable. Certainly we cannot go on lengthening the curriculum ad infitum; if we add to the amount required in one subject we must cut down in another.

Of all the preliminary studies which a student has to undertake, it has seemed to me that Botany might be excised without a qualm. In the old days the physician after seeing the case was wont to repair to the village common where he plucked a leaf here, a twig there, and a root elsewhere. These having been well decocted, he possibly added a little frog-spawn or the tails of three newts or possibly a quart of Madeira to convince the patient of the potency of the medicine. Botany has been left us as a legacy from the bad old days, and as far as practical medicine is concerned is the acme of futility. It is not even taught from the point of view of plants from which drugs are obtained. It is taught as a separate science, the only value of which to the medical student is an educative one. From that point of view his time is much better employed on subjects with more bearing on practice. It was all very well when the doctor made his own medicines, but what doctor wants to compete with P. D. & Co. or Burroughs Wellcome?

In the teaching of physiology as well, I think there is room for some improvement. Here is a science upon which medicine depends as upon no other. At present there are two kinds of student in this subject: the one who is content with enough for some medical examination such as a 1st or 2nd M.B. or 2nd Conjoint; the other, after having done this, as a rule goes on to do some special study in

the subject with a view to a university degree. Both these classes of student are taught from the same view-point, namely, the scientific one, and it is here that I disagree with our method.

Physiology has now become so vast a subject that to get a grasp of it is much more difficult than it used to be. The fact is, too, that with increase in bulk an increase in clarity has not gone hand in hand. If you doubt, compare Huxley's and Starling's text-books respectively. My contention is that the student who is some day to become a general practitioner ought to be taught the subject as it applies to medicine. Let the Honours man be taught it as a science. The other man wishes to be a doctor, which is quite a different thing. Nor do I think that by making physiology more practical in its bearing we would sacrifice much in the way of principle. For example, in dealing with the nervous system the physiologist and anatomist each have a go at the student. One tries to teach him the function of various parts of the brain and cord, probably before he has ever dissected them. The other then fills him up with data as to structure without much relation to function. Later on, in the wards, the student picks up in some sort of way various tests of normal function of the various parts. I fail to see any good reason for this separation. The student ought to be taught what is normal and the reasons for the various tests which he will afterwards apply as tests of normality. There ought to be more clinical physiology in the work done by the medical student proper. He spends too much time doing things like separating secondary proteoses from protein mixtures and not enough on things like estimating blood urea and examining body fluids normal and abnormal. At present he learns many things which have some bearing on medicine and many more which do not. He is given little help in distinguishing between the two and often when he comes to do his clinical work, disregards his physiology or has forgotten it, and learns his clinical work by rote which he could have done almost as well with almost no physiology at all.

Another part of physiological teaching which ought to be scrapped, as far as the medical student is concerned, is what is usually known as "frog-jumps." This exercise is, no doubt, very interesting from the abstract point of view of science, and even the average youth gets some fun out of trying to make an obstreperous frog jump when he wants him to. But this is another legacy from the past, a tradition handed down from Gotch and Burdon-Sanderson. I have never seen students produce anything from frog-jumps except dirty hands, boredom, and a certain amount of cruelty to animals. If you must train the student to use his hands and develop in him that artistic sense of perfection mentioned by Osler, let him have an animal like the cat to play with. A "cat" class, where the effects of stimulating nerves, injecting drugs, and such things can be beautifully studied, would be a valuable addition to any medical course. Or let him learn to play the ukelele. It would be a much more valuable asset to him later than all the accumulated knowledge about frogs.

So I think the time has come in physiology when we must begin to make a greater distinction between two classes of students. The man who is to be a doctor ought to be taught applied physiology, because in most cases it is too difficult to apply without more help than the student gets nowadays. The other who wishes to go in for research or teaching or to become a super-practitioner of some kind does not belong in a medical school at all. He presumably has more time and money, and his place is at a university, where he will learn pure science under different teachers. If he wishes a medical qualification he ought to be able to apply his knowledge after taking an honours degree. The present system is a compromise and one which favours the few rather than the many. It ought to be changed.

Concerning our teachers, there are one or two criticisms which must be made, and these criticisms apply very much more to the preclinical period, where such a thing exists, or at any rate to the teaching of the sciences which are called the handmaids of medicine and on which medicine depends. In the first place many of those who teach the preliminary subjects, including biology, chemistry, physics, physiology and pharmacology, have never been taught how to teach. There is usually a professor who has done some good work in the subject, possibly original work, and from experience he is usually fairly apt in imparting the knowledge which he possesses. But this is not always the case. Very often the most eminent man in any science makes the very worst teacher. This is because the best scientist is the man who has an original mind, thinks deeply in advance of the present state of knowledge and is always looking at the whole sub-

ject from that point of view. The ideal teacher, on the other hand, is the man who can assimilate the history and development of the science from earliest times, and who, always keeping abreast of recent advances, can present to the student the present position of the different aspects of the subject in a form which is comprehensible. Even if the professor or chief does happen to be a man who can talk as well as think, personal contact of student with professor is nowadays becoming more and more rare. The heads of departments often or, in fact, usually have some bit of work of their own on their hands, and they are much interested in it. The main burden of teaching falls on assistants who are too often chosen from the point of view of brilliance in academic or research work and who are too often of the type which sees more new questions to answer rather than knows the answers that have already been reached. At any rate, the fact is that our teachers in preliminary subjects are too commonly unable to present a connected story of the subject to the student.

There may be some who disagree with this idea of the qualities which a teacher ought to possess. The system is often called "spoon-feeding" in a contemptuous sort of way. Well, few fractures are caused by hard words, and call the system what you will, I am of opinion that there is too little of it in our medical schools. Such a system is said to blight the tender bud of initiative and render the student incapable of thinking for himself. But the student who wishes to be a doctor will never have much time for deep thought along physiological lines for instance. What he really wants and needs is to get a grasp of what the subject is all about, some idea of its development, and sound knowledge of the fundamentals, brought up to date. If this object were kept more in view by teachers in a subject like physiology, there would be many fewer "ploughs" in second M.B. and Conjoint, with much consequent saving of time and money for the medical student. There is no danger in spoon-feeding in a subject like physiology. The good man will always be full of questions and will add the trimmings for himself, and the less brilliant student will at any rate have the facts, so far as they are known, presented to him. This is far better than allowing him to grope blindly into some large Slough of Despond of a text-book crammed with inaccuracies, inconsistencies and irrelevances, and leaving him to emerge sadder, but no wiser, with a mangled idea of truth and cursing the whole subject. So one cannot help thinking that if we are to retain our present methods of teaching in physiology, at any rate the only honest thing to do is to appoint men from the point of view of teaching and not from the point of view of research.

I have no quarrel with teachers of anatomy. Neither my acquaintance with them nor with the subject is an extensive one. They are said to be very good, probably because so many Scots take it up. All honour to men who can devote their lives to a subject afflicted with chronic stasis. When Vesalius was dissecting and teaching anatomy at Padua in the sixteenth century the subject must have been of breathless interest to all concerned, but now anatomy advances little and only along certain lines. It is definitely recognised as a finite subject, and it is probably this fact which allows the teacher to devote his energies to teaching and not so much to delving into the unknown.

But I think that in anatomy as well the teaching is too far removed from any practical use which it is going to be in later years. Sir Charters Symonds agrees that there is too much stress laid on the minutiæ of the subject, and not enough on anatomy in its relation to the operations of surgery and medicine. The study of every knob and groove on the carpal bones may be excellent mental exercise, but it is useless from the point of view of the end to be achieved, quite as useless as the long rambling discussions of ancient philosophers on the Chief Good or some other point of that sort. I think our teaching ought to lay more stress on surgical anatomy and less on anatomy as an academic study. Surgical anatomy is left too late and the student finds it very difficult again to apply the knowledge he has gained because stress has been laid on the wrong things. It seems to me a fairly general fault that the student is more or less left to pick up his surgical anatomy as best he can, by watching operations and by stray bits of instruction given occasionally by the operator, just as he is left for himself to find out how much of his physiology is of any use to him in the wards. In my opinion the strain is too great for the average man, and he is reduced to learning things up by rote to pass an examination.

On our clinical teachers it is impossible to make any definite criticisms. They vary tremendously, of course. Some are pure clinicians, others are well versed in the accessory sciences as well. In the old days it was the physician and surgeon who taught the student his anatomy, physiology and pathology, and when the apprentice used to live with his master he imbibed useful learning, no doubt, with his morning porridge. It is unfortunate that the same methods cannot be used now, as nobody is really so competent to teach these subjects to the student as the man who has tried out theory against practice. But there would probably be protests from both sides if it were suggested that a physician should house, feed and look after the moral welfare of some 23 ward clerks. Besides, the members of the staff of a big hospital are nearly all very busy men and do not have the time now that is necessary to show the student how to correlate his pre-clinical work with the practical conduct of cases.

We cannot expect every noted physician or surgeon to be a great teacher, but we do expect him to be an example to us in the way he treats his patients as to how we are to treat ours. We expect him to be strictly honest, both with us and with himself, to be broad-minded, willing to tell us his mistakes, and imbued with the traditions of medicine, not as a science, but as a healing art. We hope our teachers in the wards will be such as to inspire us with the true dignity and worth of our profession and fill us with determination to live up to the spirit of the Hippocratic Oath. Sometimes, but rarely, I am glad to say, we are disappointed in them. The truth is, that to carry on a private practice, a hospital practice and to do much teaching of students at the same time requires tremendous endurance, and many of our clinical teachers are grossly overworked. It was to obviate this to some extent that the Clinical Unit system was introduced, about which I wish to say something later.

One of the great difficulties that the student finds when he first comes into the wards, and even for years afterwards, especially where there is training of nurses going on as well, is to learn the small practical points about treatment which mean so much to the patient and which go on without the student's knowledge or observation. There is tremendous ignorance, even in people who have taken their degrees, about small things such as enemas, how to give medicines so as to be most palatable, etc. Doctors are notoriously ignorant about babies, because the details are left to the nurse. This is wrong. The doctor is responsible for the patient and should know more about nursing than the nurse. I see no reason why there should not be some wards with students as the only nurses, and if there were a baby or two the experience would be even more instructive. Besides the student could observe his patient during the whole 24 hours, or a great part of it, which would be an advantage. When Osler went to John Hopkins he found the students being trained by lectures and having no set work or official place in the hospital. This was changed, and the student was made an integral part of the machinery without which the hospital could not run. This is as it should be, but I would suggest going one step further and making him do *all* the work, in some wards at least. The practical value of one's time in the wards would easily be doubled.

Another subject which is much neglected nowadays is pharmacy. I suppose one can learn the action of drugs fairly well from books, lectures and demonstrations on animals. But the modern doctor knows very little about the drugs themselves or the actual making up of medicines. The word copaiba conveys no image to his brain except one associated with urinary antisepsis.

Now that the period of clinical work has been made three years practically universally, there is more time for a consideration of a subject of such practical importance. It is not right nor consistent with the high ideals of the profession that the young doctor should be afraid to order a certain drug because he does not know its incompatibilities, or if he does order it, having the chemist send his prescription back. I see no reason why students should not spend some weeks in the dispensary of a large hospital, working, of course, under supervision. The actual handling and examining of drugs gives a confidence in their use which nothing else can, and I do not think there is enough of this familiarity which would unite theoretical knowledge with the actual substances about which he has learned. At any rate the fact is that the knowledge of drugs in the newly-qualified is less than rudimentary. The nurse who gives the medicines learns more about what they look like than the student.

Coming now to clinical instruction in general I wish to say something about a comparatively

recent innovation—the clinical unit. There are now clinical units, I believe, at five large London hospitals. The idea of the system is that there shall be at the head one of the biggest men in the profession, a man who has been well trained clinically, with experience of medicine and also well grounded in the sciences, such as physiology, pathology, bacteriology, etc. Under him there is a staff of men skilled in various departments, and the duty of these men is to carry out research under the direction of the head of the unit. The chief has a large enough salary to be able to give up all outside practice and devote himself to the advancement of medicine. The fact that such a scheme has been started seems to show that there has been some dissatisfaction over the present system of teaching in so far as it applies to the development of the art, apart from its function, in training medical men. Scientific research workers have been in the past too far removed from practice and clinical researchers have been too unscientific. The result is an attempt to inaugurate a system which will combine the two in a unit where all aspects of any question will be presented and which probably will produce something rather superior in the way of research work. Attached to these units are students just as to an ordinary firm in any hospital.

The unit system ought to work very well if practice agrees with theory. One imagines that Harvey, when he was on the staff at Bart.'s, and at the same time lecturing about the circulation, must have been the leader of a band of men who put his new methods into use. But the system has not been going on long enough to form a judgement on it as yet. One hopes they will not fall into the same error which Herringham facetiously remarks is characteristic of American medicine. According to him the Americans have gone back to Hippocrates with a vengeance, and do nothing now but make observations on their patients, without venturing a diagnosis. This he calls the encyclopædic theory of medicine, and remarks that the sort of thing which happens is for the physicians to die and the student to become senile while profound observations are still being made on the state of the patient's organs.

Certainly there is no doubt that the unit system must not become general, i.e., there must be many more ordinary teaching groups present in a hospital than units. At one hospital I know students will tell you that the man who has had university training in physiology and pathology fits in quite well on a unit, but the man who has not done extensive work in science finds the work academic, the rudiments are passed over as taken for granted, and the points emphasised are theoretical, of little value to him later on. So that although the unit may be a very stimulating system for the man who is already a physiologist, it becomes depressing to the great majority of medical men. I think the future of the unit will be concerned in turning out men who can fill teaching posts creditably and do research work that is intelligible and based on scientific principles, and I think that now we have the unit with us it is a strong argument in favour of separating our preliminary physiological education more into an applied and a theoretical branch. The unit makes such a distinction for all practical purposes. Why not recognise that the whole subject is becoming too unwieldy for a strictly medical course and teach the medical man a different body of facts in a different way, just as we teach him forensic medicine, not as a lawyer, but as a doctor.

One other subject deserves mention, and that is the one of examinations. No one ever has a good word to say for examinations. Examiners are annoyed at being torn away from their work to listen to the inane drivel of students. Students find examiners to be crotchety old gentlemen who are barely civil and often downright rude; pigheaded also, and fond of their own little theories. Examinations to the student are a plague comparable only to the Seven Year's Itch. Nearly all of them can be shown to be farcical in one way or another. They plough men who should get through and let men through who should get ploughed. A man may be examined on a clinical case about which he has just been told all the facts by a previous candidate. Yet no great mind has been sufficiently interested or sufficiently able to devise anything better than this system. Sir Clifford Allbutt, in 1922, suggested that in some way duly certified copies of the students' clinical notes from the wards should be taken into account, and this suggestion appeared in some recommendations of the General Medical Council concerning final examinations. Apart from this I have seen no suggestion from any great physician as to a remedy for the absolutely glaring and staring evils of the examination system.

The problem is too difficult for me—I leave it to others to suggest remedies.

There is no doubt that the troubles of the medical student, his failures, his ignorance, and his inefficiency when newly qualified are not altogether due to the system by which he is educated. There is no system that will educate the uneducatable, and the man who is damned if he will work will be damned all right eventually, either by examiners or the competition of practice. As Osler says, there are many who worship at the altars of Bacchus and Venus whose fires should be kindled at the feet of Minerva. Let me quote in conclusion a line or two which if taken to heart by many students would lighten their load considerably—

"It is impossible you should take true root, but by the fair weather that you make yourself. It is needful that you frame the season for your own harvest."

Correspondence.

Guy's Hospital Biennial Dinner.

DEAR SIR,—I am greatly indebted to you for so kindly inserting my previous letters in the GAZETTE, and am now sending you a list of the names of the Guy's men who have already signified their intention of coming to the Dinner.

Every old Guy's man should by now have received a notice of the forthcoming Dinner fixed for Friday, October 16th at the Connaught Rooms, but it is possible that some few notices might have gone astray, as it is not always easy to be quite sure of every address. If, therefore, any reader of this (Medical or Dental) has not yet received a formal notice, I shall be glad if he will send me his name and address on a post card. I should also be very grateful if anyone will let me know of any Colonial Guy's men who will be temporarily in England at that time.

Notices have not been sent to present students, but all are invited to come to the Dinner, and notices are posted in the Colonnade, Students Club, Dental School and Library; forms of application may be obtained from the Librarian.

In some instances men have asked to sit next some friend who has not yet notified us that he will be present, so that the absence of these Guy's men from the Dinner would be a source of disappointment to many. I hope, therefore, that those men who are coming will see to it that their friends are urged to come also.

The Biennial Dinner is a splendid opportunity to renew old friendships, and I hope that all who are still hesitating over their decision as to whether they will attend or not, will now help to make this a record success by adding their names to the list and applying for tickets.

Yours sincerely,
ARTHUR W. ORMOND,
Hon. Secretary.

9, Devonshire Place,
Upper Wimpole Street, W.1.
21st September, 1925.

List of Guy's Men who have signified their intention to attend the Dinner.

1851—1879.

1854†Dixon, John, and Guest.
1867 Golding-Bird, C. H.
1869 Durham, Frederick.
1875 Cock, W.
Symonds, Sir Charters, K.B.E., C.B., C.M.G.
1877 Bowen-Jones, L. M., and Son.
Knox-Shaw, C.
1878 Reynolds, Lewis W., and Guest.
1879 Howell, T. A. J.
18 9 Newton-Pitt, G., O.B.E.
Tyson, W. J.

1880—1889.

1880 Askwell, H. G.
1882*Howell, J. B.
1884*Kinsey-Taylor, A. E.
Tubby, Col. A. H. C.B. C.M.G.
1885 Heatherley, Francis.
Price, Alfred E.
1886*Collingwood-Andrews, E.
Drew, Henry W.
Beard, Frederick.
Holloway, S. F.
1887*Randall, P. N.
1888*Metcalfe, G. H.
Black, G.
1889 Wynne-Rouw, R.

1890—1899.

1890 Norburn, A. E.
Williams, Robert.
Thorne, John.
Pilcher, Maj.-Gen. C. B. C.B.E., D.S.O.
Fawcett, John, and Guest.
Stevens, Thos. G.
1891*Pollock, Maj.-Gen. C., C.B. C.B.E., D.S.O.
Samways, D. W.
Thomas, A.
Craig, Sir Maurice, C.B.E.
*Young, John
1892 Turner, F. M.
Young, Frederick C.

Floyd, S. G.
1893*Howard, J. A.
Keay, Colin.
Pendred, Vaughan.
Eyre, J.
1894 Carpmaele, Cecil.
Gore-Reynolds, B., & Guest.
Allport, A.
Robinson, W. E.
1895 Aston-Key, M.
Partridge, A. H

1896*Pike, W. H.
Fagge, C. H.
Milbank-Smith, H. J. M.
*Clowes, E.
*Marsh, H. R.
Spon, H. J.
Brice-Poole, T.
Rowlands, R. P.
Ormond, A. W., C.B.E.
1897 Way, Montagu.
Norwood-East, W.

1898 Barrow, Lt.-Col. H. C.M.G., D.S.O., O.B.E.
Henson, W. J.
Eason, H. L., C.B., C.M.G.
Peatson, J. C. S.
Ashby, E.
Jocleyn-Swan, R. H.
1899*Watson, Major D. P., D.S.O.
Simpson, Graham.
Taylor, J. G.
Penrose, A. W.

1900—1909.

1900 Goble, E. W.
Thomas, T. P.
Clarke, Edward.
Brydone, James M.
Camps, P. W. L.
Butler, J. A., and Guest.
1901*Manser, F. B.
Bent, Sydney C. H.
Greenfield, L. G.
1902 Pinching, C.
Shipway, F. E.
Odgers, N. B.
1903 Reinhold, C. H., Lt.-Col.
Wallace, F. H.
Spriggs, N. I.
1904 Hughes, E. C.

Mollison, W. M., C.B.E.
Hurst, A. F.
Beaumont, A. R.
Hughes, Frank P.
1905*Cameron, H. C., & Guest
Hallowes-Miller, A.
Crofts, A. D.
McBride, John, and Guest.
1906 Burney, Major W. H. S.
Layton, T. B.
Berry, Arthur W.
Malleson, H. C.
Adams, E. H.
Davies-Colley, R., & Guest.
Blundell-Bankart, A. S.
Vandermin, H. F.

Ripman, C. H.
1907*Carr, T. E. A.
Joste-Smith, H., M.C.
Carlill, Hildred.
Russell-Reynolds, J.
Watson, John N.
Jones, C. E. M.
Palmer, B. H. P.
Densham, A. T.
1908 Lucey, H. C.
Denning, A. F. W.
Dobson, M. R.
1909*Druitt, D. C.
Attwater, H. L.
Mills, C. H.
Brook, Stanley.

1910—1919.

1910 Bromley, Lancelot.
Munden, M. M.
Gardiner, H.
Steinbach, H.
Poulton, E. P.
Doubleday, F. N., & Guest.
Penny, E. A.

1911*Lloyd, F. G.
Barber, H. W.
James, H. L.
Cook, F.
*Stuart-Carruthers, N.
Sandison, A.
Foster-Smith, G. F.
Williams, O. E.

1912*Milton, L., M.C.
Izod-Bennett, T.
Hoby, Harry J.
Keith, T. S.
Zamora, A. M.
Jepson, A. C.
Genge-Andrews, G. E.
1913 Tanner, W. E.
Evans, H. W.
Lane-Roberts, C.
Leigh, H. V.
Morgan, O. G.
Wickenden, S.
Ryle, J. A., and Guest.
Scott, E. D.
Ogilvie, W. H., and Guest.
Reynell, W. R.

1914*Broster, L. R., O.B.E.
Pedley, Charles F.
Bocquet-Bull, F.
Pritchard, G. B.
Annesley, Capt. F. D., M.C., Croix de Guerre.
1915 Curle, Reginald.
Lloyd, Vernon.
Symonds, C. P.
Easton, W. A.
Sells, Roland.
1916*Bates, Kenneth.
1917 Conybeare, J. J., M.C.
Woodruff, K. M.
Bulleid, Arthur.
1919 Lansdown, R. B. P.
Griffin, J. H.

1920—1925.

1920*Crisp, E. J.
McAlpin, K. F.
1921*Noot, G.
Shaw, M. E.
Myatt, J. H. D.
Churchill, H. C.
Richardson, P. L.

1922 Williams, P. H.
Laver, B. L.
Moore, B. R.
Allin, J. F., M.C.
1923 Fawkes, R. B.
Brown, W. A.
Smart, H. D.

1924 Baylis, H. P.
Marsh, Frank.
Gray, John.
1925 Jago, M. E. M.
Garland, T. O.

†Date of Qualification. *Vice-Chairman.

Also Sir Charles John Stewart, R. M. Holland-Martin, Esq., The Rev. A. G. Harris, Major Reginald Bonsor, Harry P. Shepherd, Esq., Hon. Evelyn Hubbard, John E. Humphery, Esq., Lt.-Col. Hugh C. Fortescue, The Rev. Canon J. B. Haldane, F. P. Whitbread, Esq., V. C. Vickers, Esq., Major The Hon. Richard Molyneux, Edward W. Giffard, Esq., W. E. Stuart-Menteth, Esq., Sir Rowland Blades, M.P., and the Editor of the GUY'S HOSPITAL GAZETTE.

TIME TABLE. WINTER TERM, 1925.

SUBJECTS FOR FINAL EXAMINATION. MEDICAL.

Subject	Lecturer	Days and Times	Place.	First Class or Lecture
Insanity	Sir Maurice Craig	Lectures. Fridays 4.30 p.m. Demonstrations. Notice Board	Physiological Th'tre Bethlem Hospital	Friday, Oct. 2, at 4.30 p.m. Tues., Oct. 6, at 2 p.m.
Operative Surgery	Mr. Turner	To be announced later	Operative Surgery Class Room	To be announced later
Forensic Medicine	Dr. Ryffel	Thursdays at 4 30 p.m.	Class Room 3	Thur., Oct. 8, at 4.30 p.m.
Surgical Pathology	Mr. Davies-Colley	Mon. 4.15 p.m., Wed. 12 noon	Museum	Wed., Oct. 7, at 12 noon.
Medical Pathology	Dr. Ryle	Tues. and Sats. 9.30 a.m.	Museum	Tues., Oct. 13, at 9.30 a.m.
General Pathology	Professor Stokes	Lectures. Mons., Weds. and Fridays at 12 noon Practical. Daily at 9 a.m.	Pathological Th'tre Path'cal Class Room	Mon., Oct. 12th, at 12 noon.
Ophthalmology	Mr. Ormond	Tuesdays at 4.15 p.m.	Anatomical Theatre	Tues., Oct. 6, at 4.15 p.m.
Revision Classes in Medicine	Dr. Marshall	To be announced later	Class Room 3	To be announced later
Revision Classes in Surgery	Mr. Turner	To be announced later	Class Room 3	To be announced later

ORGANIC CHEMISTRY, ANATOMY AND PHYSIOLOGY.

Subject	Days and Times	Place	First Class or Lecture
Organic Chemistry (2nd M.B. Part I.)	Lectures. Weds. & Fridays 9.30 a.m. Practical. Mons. & Thurs. 10-1 p.m.	Chemistry Theatre Chemistry Laboratory	Lecture. Wed., Sept. 30, at 9.30 a.m. Practical. Thurs., Oct. 1, at 10 a.m.
Anatomy	Lectures. Senior, Tues. & Thurs. 9.30 a.m. Elementary. Mons. 9.30 a.m., Weds. 11 a.m. Practical Anatomy. Daily from 9.30 a.m. to 5 p.m. Revision Classes. To be announced later Normal Histology. Tues. & Thurs. at 2 p.m.	Anatomical Theatre —— Dissecting Room Demonstration Theatre Histology Laboratory	Thurs., Oct. 1, at 9.30 a.m. Elementary. Wed., Sept. 30, at 11 a.m. —— —— Thurs., Oct. 1, at 2 p.m.
Physiology	Elementary Experimental. (All Junior Stu.) Fris. 11-1 & Sats. 10-12 noon Advanced Chemical. (Senior M.B. and First F.R.C.S. Students) Mons. & Weds., 11-1 p.m. Clinical Physiology. (All Students) Thurs. 12-1 p.m. Tutorial Classes, Elementary. (Junior Medical Students.) Advanced. (All Senior Medical Students.)	Experimental Physiological Laboratory Chemical Physiological Laboratory Clinical Theatre To be arranged at a General Meeting of Medical Students attending courses in Physiology, to be held in the Physiological Theatre on Thursday, October 1, at 12 noon	Fri., Oct. 2, at 11 a.m. Mon., Oct. 5, at 11 a.m. Thurs., Oct. 8, at 12 noon

CHEMISTRY, PHYSICS AND BIOLOGY.

Course	Subject	Lectures	Place	Practical	Place
Pre-Medical Conjoint and Preliminary Science (L.D. S.)	Inorganic Chemistry	Tues. & Thurs. 9.30 a.m. First Lecture, Tues. Oct. 6, at 9.30 a.m.	Chemistry Theatre	Tues. & Thurs. 2.5 p.m. First Class, Tues. Sept. 29, at 2 p.m.	Chemistry Laboratory
	Physics	Tues. & Thurs. 10.50 a.m. First Lecture, Thurs., Oct. 1, at 10.50 a.m.	Physiology Theatre	Mons. 10-1 p.m. First Class, Mon. Oct. 5	Physics Laboratory
Conjoint	Biology	Weds. 9.30, Thurs. 12 noon, Fris. 9.30 a.m. First Lecture, Thurs. Oct. 1, 12-1	Anatomical Theatre	Mons. & Fris, 2-4 p.m. First Class, Fri. Oct. 2, at 2 p.m.	Biology Laboratory
M.B. London	Chemistry	Tues. & Thurs. 9.30 a.m. First Lecture, Tues. Oct. 6, at 9.30 a.m.	Chemistry Theatre	Mons. 10-1 p.m., Tues. 2-5 p.m. First Class, Tues. Sept. 29, at 2 p.m.	Chemistry Laboratory
	Physics	Tues. & Thurs. 10.50 a.m. First Lecture, Thurs. Oct. 1, at 10.50 a.m.	Physiology Theatre	Thurs. & Fris. 2-5 p.m. First Class, Thur. Oct. 1st, at 2 p.m.	Physics Laboratory
	Biology	Weds. 9.30 a.m., Thurs. 12 noon, Fris, 9.30 a.m. First Lecture, Thurs. Oct. 1, 12 noon.	Anatomical Theatre	Weds. & Fris. 10-1 & Sats. 11-1 p.m. First Class, Fri. Oct. 2, 10.30 a.m.	Biology Laboratory

University of London O.T.C.—Medical Unit.

The Annual Camp.

THE Annual Camp of the University of London O.T.C. was held this year in conjunction with the Edinburgh University O.T.C. at Shorncliffe, near Folkestone, from July 13th to 28th. We were fortunate in having both fine weather and a good camping site, the spot selected being on the top of a hill facing the sea, with good training areas and within easy reach of Folkestone. To those of us who have had the good fortune to serve with the Guy's Company since its reconstruction in 1922 it was a particularly happy camp, for the object for which we have been working for the past three years was, to a great extent, achieved. Two years ago there were derisive cries of "What's Guy's?" from members of the other hospitals when the smallest company in the unit appeared at camp; now, over eighty strong and by far the largest company, Guy's took the lead in every branch of camp life. In the athletic sports, the Medical Unit Relay Team, which won the Inter-Unit Cup, consisted entirely of Guy's men, while seven of the members of the winning Medical Unit Tug-of-War team also came from Guy's. Of the individual events, Lacey came first in the 100, 220 and 440 yards, Lewis won the half-mile and hurdles, while Cautley came second in the High Jump and Weller second in the Hurdles.

The programme of work at camp was most varied, and included all the main applications of medical knowledge to work in the field. Lectures on map-reading, hygiene, first-aid, gas warfare, water supply, tropical diseases and army organisation were given, together with practical demonstrations, while tactical schemes, field exercises, and stretcher-drill also played a great part in the training. Each day a party of officer cadets was sent to the Military Hospital at Shorncliffe for instruction in hospital administration.

During the second week the contingents of the two Universities marched to Lydd, where a demonstration was given by the Tank Corps. The night was spent at Lydd and the contingents returned the following day. Our cartoonist has made the trek the subject of his drawing.

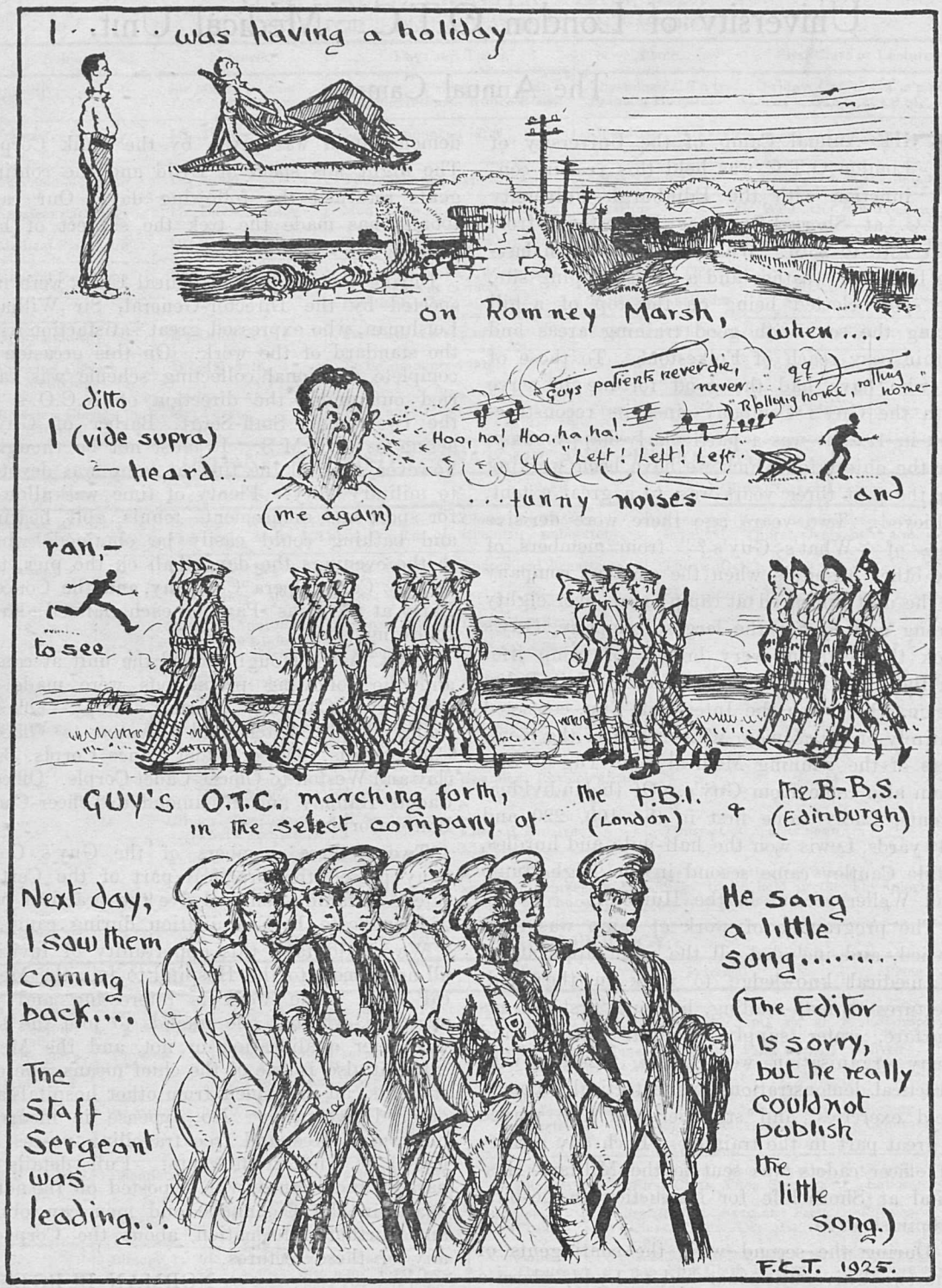
During the camp the Medical Units were inspected by the Director-General, Sir William Leishman, who expressed great satisfaction with the standard of the work. On this occasion a complete divisional collecting scheme was carried out under the direction of N.C.O.'s of the two units, Staff-Sergt. Barber of Guy's acting as A.D.M.S. It must not be thought, however, that all the time at camp was devoted to military duty. Plenty of time was allowed for sport and amusement—tennis, golf, boating and bathing could easily be obtained, while in the evenings the dance hall on the pier, the D'Oyly Carte Opera Company, and the Concert Party at the Leas' Pavilion each claimed a large following.

Lieut. A. S. Gough joined the unit at camp, and the following promotions were made in the Guy's Company during camp:—Officer-Cadet Corpls. Fitch and Gaussen to Officer-Cadet Sergts. Officer-Cadet Lance Corpls. Barclay and Weston to Officer-Cadet Corpls. Officer-Cadets Hannay and Richmond to Officer-Cadet Lance Corpls.

Twenty-three members of the Guy's Company passed the practical part of the Certificate A Examination and five the practical part of Certificate B Examination during camp.

We would take this opportunity of inviting all newcomers to the Hospital to join the Medical Unit. The work is interesting and instructive, whether one intends to join the service after qualification or not, and the Medical Unit also is one of the chief means whereby students can meet men from other hospitals and other Universities. No expense is incurred, uniform is free and free travelling passes are issued to and from camp. Full details of parades and lectures will be posted on the notice board in the Colonnade and men can obtain any further information about the Corps at any of these lectures.

NORMAN BURGESS.


I . . . . . was having a holiday
on Romney Marsh, when ....
Guys patients never die, never 99
"Rolling home, rolling home"
Hoo, ha! Hoo, ha, ha!
"Left! Left! Left!"
ditto
I (vide supra)
— heard...
(me again)
...funny noises—
and
ran,—
to see
GUY'S O.T.C. marching forth, in the select company of the P.B.I. (London) & the B.B.S. (Edinburgh)
Next day, I saw them coming back....
The Staff Sergeant was leading...
He sang a little song.....
(The Editor is sorry, but he really could not publish the little song.)
F.C.T. 1925.

Time Table for attendance of Patients in the Out-Patient Department

From October 1st, 1925.

N.B.—NEW patients should not be sent to those departments marked with an asterisk.

	Monday	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday
MEDICAL 9 a.m.	Dr. Mutch	Dr. Marshall	Dr. Conybeare	Dr. Ryle	Dr. Poulton	Dr. Conybeare
SURGICAL 9 a.m.	Mr. Slesinger	Mr. Davies-Colley	Mr. Ogilvie	Mr. Hughes	Mr. Bromley	Mr. Ogilvie
CHILDREN 9 a.m.	Dr. Cameron	—	Dr. Cameron	—	Dr. Cameron	—
SKINS	—	Dr. Barber 10.30 a.m.	—	Dr. Barber 9 a.m	—	—
*FRACTURES 1 p.m.	—	—	—	Mr. Slesinger	—	—
*T.B. DEPT.	—	Dr. Marshall 1 p.m.	Dr. Marshall 5 p.m.	—	Dr. Marshall 1 p m	—
*VACCINES, ETC.	—	Dr. Eyre 1 p.m.	—	—	Dr. Eyre 1 p.m.	—
ORTHOPÆDICS 1 p.m.	Mr. Trethowan	—	Mr. Trethowan	—	*Plasters only 1 30 p.m.	—
GYNÆCOLOGY 11 30 a.m.	Mr. Chapple	—	Mr. McNair	—	Mr. Cook	—
NERVOUS DISEASES 9 a.m.	—	—	Dr. Symonds	—	—	Dr. Symonds
EYES 11 30 a.m.	Mr. Morgan	Mr. Eason	—	Mr. Ormond	Mr. Morgan	—
EAR, NOSE and THROATS	Mr. Layton 11.30 a.m.	Mr. Mollison 11.30 a.m.	—	Mr. Layton 11 30 a.m.	Mr. Mollison 11 a m.	—
GENITO-URINARY 11 30 a.m	—	Mr. Thompson	—	—	Mr. Thompson	—
V.D. F. (Daily 9 a.m. to 8 p.m.)	Miss Rawlins 5 to 8 p.m.	—	Miss Rawlins 2 to 5 p.m.	—	Miss Rawlins 5 to 8 p.m.	—
V.D. M. (Daily 9 a.m. to 8 p.m.)	Mr. Lloyd 5 to 8 p.m.	Mr. Lloyd 9 a.m. to 12 noon.	Mr. Lloyd 10 a.m. to 12 noon.	—	Mr. Lloyd 9 a.m. to 1 p.m.	—
*DEFECTIVE SPEECH	—	—	Mr. St. John Rumsey 1p.m.	—	—	—

DENTAL.—Daily at 9.0 a.m. Children, Tuesday and Thursday at 9.0 a.m.

Table showing the Attendances of the Medical Staff in the Wards and the Out-Patient Department.

	Morning. Wards and Out-Patients.	Afternoon. Wards and Out-Patients.	Afternoon. Surgical Wards & Theatres. T. = Teaching Rounds.
Monday	Mr. Mollison (Wards and Ops. 10 a.m.) Dr. Mutch (Medical O.Ps.) Mr. Slesinger (Surgical O.Ps.) Dr. Cameron (Children O.Ps.) Mr. Thompson (Wards & Ops.) 10 a.m.	Dr. Fawcett Dr. French Dr. Mutch Dr. Marshall (Wards 2 p.m.) Dr. Symonds (Wards). Mr. B. Smith (Wards & Ops. 2 p.m.) Mr. Chapple (Gy. O.Ps.) Mr. Morgan (Eye O.Ps. Wards after O.Ps.) Mr. Layton (Thr. O.Ps.) Mr. Trethowan (Orth. O.Ps. 1 p.m.) Mr. Lloyd (V.D.O Ps. 5—8 p.m.) Miss Rawlins (5—8 p.m.)	T. Mr. Steward. Mr. Fagge. Mr. Davies-Colley. Mr. Rowlands. Mr. Bromley. Mr. Turner. Mr. Slesinger.
Tuesday	Dr. Marshall (Medical O.Ps.) Mr. Davies Colley (Surgical O.Ps.) Dr. Barber (Wards 10 a.m.) Dr. Barber (Skins O.Ps. 10.30 a.m.) Mr. Lloyd (V.D.O.Ps. 9 a.m.—12 noon) Mr. Trethowan (Wards and Ops.) Dr. Ryle (Wards 10 a.m.) Dr. Poulton (Wards).	Dr. Fawcett Dr. Beddard Dr. Hurst (Wards). Mr. Ormond (Wards & Ops. 2 p.m.) Mr. Chapple (Wards (T) & Ops. 2 15 p.m.) Mr. Layton (Wards & Ops. 1.30 p.m.) Dr. Barber (Skins O.Ps.) Mr. Eason (Eye O.Ps.) Mr. Mollison (Thr. O.Ps.) Dr. Marshall (Tub. O.Ps. 1 p.m.) *Mr. Slesinger (Frac. O.Ps. 1 p.m.) *Dr. Eyre (Vaccine O.Ps. 1 p.m.) Mr. Thompson (G.U.O.Ps.) Dr. Cameron (Wards 2 p.m.)	T. Mr. Rowlands. Sir Alfred Fripp. Mr. Turner. Mr. Steward. Mr. Hughes.
Wednesday	Dr. Hunt (Wards) Dr. Cameron (Children O.Ps.) Dr. Conybeare (Medical O.Ps.) Mr. Ogilvie (Surgical O.Ps.) Drs. Symonds & Craig (Neur.-Psych. O.Ps.) Mr. Lloyd (V.D.O.Ps. 10 a.m.–12 noon)	Mr. Trethowan (Orth. O.Ps. 1 p.m.) Miss Rawlins (V.D.O.Ps. 2–5 p.m.) Dr. Marshall (Tub. O.Ps. 5 p.m.) *Mr. Kumsey (Defective Speech 1 p.m.)	
Thursday	Mr. Mollison (Wards and Ops. 10 a.m.) Dr. Ryle (Medical O.Ps.) Mr. Hughes (Surgical O.Ps. Dr. Barber (Skins O.Ps.) Mr. Thompson (Wards & Ops. 10 a.m.) Dr. Symonds (Wards)	Dr. Fawcett Dr. Beddard Dr. French Dr. Hunt (Wards). Dr. Cameron (Children Ward 2 p.m.) Mr. Chapple (Wards (T) and Ops. 2.15 p.m.) Mr. Ormond (Eye O.Ps. Wards after O.Ps,) Mr. Layton (Thr. O.Ps.)	T. Sir Alfred Fripp. Mr. Fagge. Mr. Davies-Colley. Mr. Rowlands. Mr. Bromley. Mr. Slesinger.
Friday	Mr. B. Smith (Wards & Ops. 10 a.m. Dr. Barber (Wards—Skins 10 a.m.) Dr. Poulton (Medical O.Ps.) Mr. Promley (Surgical O.Ps.) Dr. Cameron (Children O.Ps.) Mr, Trethowan (Wards and Ops.) Mr. Lloyd (V.D.O Ps. 9 a.m.—1 p.m.) Mr. Layton (Wards and Ops,) Dr. Mutch (Wards 11 a.m.)	Dr. Fawcett Dr. French Dr. Beddard Dr. Hurst (Wards). Mr. Eason (Wards & Ops. 2 p.m.) Mr. Morgan (Eye O.Ps. Wards after O.Ps.) Mr. Mollison (Thr. O.Ps. 11 a.m.) *Mr. Trethowan (Orth. O.Ps. Plasters 1.30 p.m.) *Dr. Eyre (Vaccine O.Ps. 1 p.m.) Dr. Marshall (Tub. O.Ps. 1 p.m.) Mr. Thompson (G.U.O.Ps.) Mis Rawlins (V.D.O.Ps. 5–8 p.m.)	T. Mr. Fagge. Sir Alfred Fripp. Mr. Turner. Mr. Steward. Mr. Hughes.
Saturday	Dr. Conybeare (Medical O.Ps.) Mr. Ogilvie (Surgical O.Ps.) Dr. Symonds (Neur. O.Ps.) Dr. Ryle Wards 10 a.m.) Dr. Marshall (Wards 10 a.m.		

* = For reference only.

From an Essex Creek.

ABOUT a mile north-east of Thorpe-le-Soken (a fairly large village on the perilously narrow "main" road that at week-ends feebly endeavours to accommodate the terrifying traffic between Colchester and Frinton) the alert eye of the holiday cyclist towards Dovercourt perceives two hundred yards to the right, across a field, an attractive-looking, low, red-brick building with white stone facings. Reaching it by a desolate lane, he finds it stands on a wharf (known, from a neighbouring village, as Beaumont Quay) at the point where in the early years of last century a vague ditch attained, in the natural course of things, adolescence as a trickling tidal streamlet, soon to broaden out, with the title of Hamford Water, into a typical Essex creek. Ninety-three years ago the potentialities of the site were developed and stabilised by the utilitarian energy of that decade—a wharf was constructed, with dam and sluice upstream; banks were reared and an adequate though elementary system of dredging instituted; and a large granary and lodging for the wharf-keeper arose on the reclaimed strip of land, with out-houses and store-rooms complete.

Over the central door of the main building is a stone with the following inscription :—

This BUILDING and QUAY
was Erected by the
GOVERNORS of GUY'S HOSPITAL
1832.
R. HARRISON, Esq., Treasurer.
The Stone used in the Quay formed part
of LONDON BRIDGE built about
1176.

The crumbling quay is still in occasional use at high water, but the granary is empty, and there are no signs of regular storage of any kind. The cargo of such barges as still drift up and down with the tide consists mainly —so we were told, for we saw none ourselves— of Norwegian timber from Harwich and bricks shipped in exchange. At the present time considerable repairs and alterations, apparently of a domestic nature are in progress on the building itself, but no information on the subject was forthcoming from the workmen. The history of this venture up to the present time is unknown to me.

But for Guy's men (of whom I cannot boast myself) an additional interest attaches to this isolated spot. For it is surely not fanciful to suppose that the enterprise inaugurated in 1832 may have determined the choice of Hospital made five years later for his son by a wharfinger at Landermere, about a mile down the south edge of the creek and four from the open sea to the east. This grass-grown hamlet, consisting of about half-a-dozen small cottages, a somewhat dilapidated house of refreshment, and—sitting solitary—a new, but derelict villa, is approachable only by a rambling and ill-kept lane leading out of the old road from Thorpe-le-Soken to Walton-on-the-Naze. Hamford Water is at this point some two hundred yards broad, but the wharf has fallen wholly into decay. A hundred years ago, however, there must have been a fair amount of traffic, for the wharfinger in question eventually became the proprietor of two barges of his own. It may be presumed that the almost complete inaccessibility of the hamlet in winter induced him to send his wife in December, 1816 to Colchester, about fourteen miles inland; in any case, on the last day of that year she there gave birth to a boy.

On the front wall of one of these cottages on Landermere wharf a roughly and irregularly daubed inscription—maybe the effort of a proud but unskilled barge-caulker—informs the very few visitors that effect their difficult passage down that ramshackle mile of lane that it was "the early home of Sir William Gull."

The old stones of London speak—
For twenty generations, ebb and flow,
We bore the tramp of London; churls and kings
Passed over us, and the slow lumberings
Of all her myriad traffic—long ago.
Here see we naught of all we used to know,
Save that we love in fond imaginings
To fancy hers are still those seamew's wings
That wheel above us when our sun sinks low.
Yet, exiled as we lie and all fordone,
Not past all use we lie, nor wholly dead,
Seeing we handed to our foster-son
The torch of piety, who with other powers,
Nursed by this creek, by these strong breezes fed,
Served in his turn the London that was ours.

He lies in the churchyard of Thorpe-le-Soken, the parish of his boyhood, by the side of his parents and others of his family whose necessities he bounteously relieved.

P. M. W.

Guy's Hospital Bicentenary Appeal.

NEW comers to Guy's Hospital will have much to read in this number of the GAZETTE. It is chiefly devoted to welcoming them to Guy's and to interesting them in this great Hospital.

They have joined at a time when it has just celebrated its 200th Birthday. They have, therefore, 200 years of its life to learn about. This cannot be learnt in a few minutes nor is it possible to even outline its great history in a few pages. They have to learn first who Thomas Guy was and how he managed to make his name immortal. They have to learn of the great work that has been achieved within its walls and of the great men that have lived here. A visit to the Library will enable them to read its history in full and a copy of the *Bicentenary Gazette*, a limited number of which have been specially reserved, will supply them with much interesting information. This number of the GAZETTE is merely to call attention to their immediate surroundings and to give them a few words of advice which, if they are wise, they will follow.

They cannot fail to be greatly impressed by this new home where they find themselves, but it will no doubt take them some time to realise what Guy's Hospital really means, what a complete little world is contained within its boundaries and to appreciate the significance of the steady growth and progress that has taken place during these last 200 years. Guy's Hospital in 200 years has achieved a world-wide reputation. We know that reputation is largely due to the work of its physicians and surgeons during the last 200 years, but it is also due to its administration.

No great institution like Guy's could possible achieve its magnificent standard of efficiency without involving an enormous expenditure of money. Where has this money come from, and how has it been spent? It is true that for years those who follow the finance of hospitals and other charities have recorded their praise of the economical administration of Guy's.

Many years ago the Rt. Hon. William E. Gladstone, one of the greatest Chancellors of the Exchequer, said, "I rejoice to find, upon the best examination I am able to make, that Guy's Hospital is distinguished among its sister institutions by the vigilant economy of its administration, so that it affords to all contributors the best guarantee for attaining through their contributions a maximum of good." These are great words from a great man, and it is equally true to-day. The Statistical Report of the King Edward's Fund for Hospitals will confirm this testimony. It is not the policy of Guy's Hospital to advertise its great achievements, and many must pass its doors to-day without giving a thought to its wonderful administration and to ask themselves how it is that this great hospital with its half a million out-patient attendances each year and its 10,000 in-patients each year can afford to keep going year after year with its expenditure and work increasing each year?

It is thought by many that Guy's is a wealthy hospital, amply endowed by its great founder. That may have been true a hundred years ago, but to meet the needs of the present time that endowment only covers one-third of its cost. Nearly £100,000 has to be collected in voluntary contributions each year.

The growth of the Hospital may be more easily realised when one knows that originally the Hospital cost Thomas Guy £14,000 to build. Since then more than half a million pounds have been spent on its extensions and renovations. The Governors of the Hospital have, in spite of great financial difficulties, always kept Guy's up to date. They have looked after their trust, they have kept its old walls firm and strong, and they have for ever added new extensions in order that its great work should go on unhampered and the needs of the present day met as they arise.

In consequence of this and in spite of the many generous benefactors to the Hospital, we found ourselves, at our 200th Anniversary in debt to the amount of £200,000. Nearly half of this sum has now been raised by the activity of past and present Guy's men and nurses and by many other generous friends of the Hospital. The other half still remains to be found, and once again all Guy's men, as well as new comers, are earnestly asked to help.

Small collecting books are available at the Counting House and all new students are asked to take one of these and to do his best. Guy's wants money, and it is not too much to ask everyone to help to their utmost to give and to collect from their friends all they possibly can.

A complete list of all donations to the Bicentenary Appeal will shortly be published.

Pupils' Physical Society.

Hon. President. — Sir Charters Symonds, K.B.E., C.B., C.B.E., M.S.

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Hon. Secretaries.—Grant Massie, M.S.; M. E. Shaw, M.D.

THE Pupils' Physical Society is a direct descendant of the older Physical Society which was founded in 1771, and which was London's oldest medical society. The older organisation ceased to exist in 1852, partly owing to the competition of the Medical and Chirurgical Society, now the Royal Society of Medicine, which was founded in 1805. The Pupils' Physical Society was originally started in 1830 as a purely students' society for the discussion of subjects of medical and surgical importance, for the showing of interesting cases, and for the reading of papers. The functions of the Society are the same to-day as they were close on a century ago, and it cannot be too strongly emphasised that it is and always has been essentially a students' organisation. Its members are the members of the Clubs' Union. It is managed by a Committee consisting of not more than 16 Presidents, elected by the Society from the senior students and House Officers. The meetings, which in the coming session will be held on alternate Tuesdays, are presided over by one of these Presidents, who, apart from one of the Honorary Secretaries, are usually the only qualified men present. This point is stressed, because students are apt to think that the Society is designed for the benefit of qualified men and members of the staff. Few of the former and none of the latter attend the ordinary meetings which are particularly intended to give students an opportunity of discussing medical problems amongst themselves. The attendances have been rather disappointing of recent years, and it is hoped that the present session will show a distinct improvement.

Medical men are particularly liable to be called upon to speak in public during their professional careers. Attendance at the Physical Society's meetings lays the foundations of a capacity to carry off what is to most people, especially the unpractised, a difficult and delicate task with some degree of distinction. Medical Societies, too, exist in all the larger towns and in many country districts. The experience afforded by the Physical Society enables a practitioner who has been assiduous in his attendances in his student days to take an active part in the work of such societies without developing an "inferiority complex."

Apart altogether from its uses as a training ground for public activities in later life, the Physical Society presents opportunities to students for acquiring a knowledge of medicine in a more congenial (and certainly equally valuable) manner than is provided by routine teaching and book work.

It is no exaggeration to say that the education of a Guy's man is incomplete unless he has regularly attended the clinical and pathological evenings of the Physical Society. There is no obligation on members to take part in the discussions, but those who do so derive greater benefit from the meetings than those who do not. In any case those who come to the meetings have a chance of seeing a mass of clinical and pathological material which they would probably not see otherwise. "Experientia docet."

Guy's Physiological Society.

THE Guy's Physiological Society came into existence some twenty-five years ago when Professor Pembrey, realising the need for such an institution, founded what has become by no means the least popular of the various Hospital Societies. Nor is its popularity confined to the students as is testified by the great interest taken in it by a large proportion of the Staff.

The object of this Society is to promote in-

terest in the study of Physiology and its allied subjects. This may sound as if it were too serious to interest students, whose minds and attention are focussed on matters serious all and every day. But the prospective member has only to attend a meeting to convince himself that even though the subjects are usually academic in nature, their discussion very frequently allows members to be anything but academic. Wit and humour, as often as not accidental rather than designed, clear the air, and so the seriousness of the subject is not allowed to oppress unduly. Those who heard him will not forget the member who, in discussing the personnel of antivivisection committees, said, "They consist largely of spinsters, who produce nothing more than a litter of pamphlets."

In the Clubs' Union Handbook, to be issued shortly, one will still, no doubt, read of the Debating Society, which afforded a valuable medium for the practice of public speaking and the exercise of all the skill and artistry of debate. But this Society has been defunct for some time now. Perhaps more than any other institution in our midst, the Physiological Society fills in the gap.

The subjects discussed are as variable as the English climate. One topic alone, Theology, is barred, but it is curious how often in the course of a long discussion one verges on its borders. During the last session the following papers were read :—

"Birth Control."
"The Physiology of Sleep."
"Health and Disease in the Tropics."
"Food and Feeding."
"Opium."
"Some Aspects of Old Age and Death."
"Breathlessness and its Clinical Importance."
"Breeding Periods."
"Anæsthesia."
"The Functions of the Spleen," in conjunction with the Pupils' Physical Society.

Not only, however, man's academical, but also his physical needs, are studied by the Committee. Before each meeting a liberal supply of tea and buns is provided. Then for those who indulge in the weed, tobacco and cigarettes are to be obtained. For the member, therefore, are learning and amusement in an easily digestible form. To share in the activities of the Society one merely has to be a student at the Hospital—it does not matter in what year; it is not essential to belong to the Clubs' Union; and one's total outlay is the subscription of 3s. 6d. for the session—certainly the Hospital's least expensive institution.

Though it is now a quarter of a century since Professor Pembrey launched the Society on its successful career, our President still shows a very practical sympathy and interest in it. It is confidently expected that when its first meeting (notices of which will be published later) is held early in October, a large body of men, both old and new, will turn up and aid and abet Professor Pembrey in making 1925—1926 its most successful session.

H. I. MAISTER,
Hon. Sec.

Guy's Hospital Christian Union.

THE occasion of joining a big hospital must inevitably be a landmark in the life of a student. No matter where or for how long he has been educated, now for the first time he invades the fascinating kingdom of medical sciences and he starts that long quest for knowledge which should end only together with his life. But knowledge itself is a relatively unimporant item among the requirements of the ideal doctor. With knowledge, disease of the body indeed may be cured, but can any quantity of learning by itself heal the bruised minds and stricken souls that so often appeal to a medical man and appealing may not be refused.

Sympathetic understanding of his fellowmen, complete unselfishness, a desire to help any who may need help, and above all love of others are a few of the qualities which the ideal doctor cannot afford to lack.

It is seldom, however, that a man is so beautifully gifted, and how then is one to strive towards the ideal? Such qualities may not be apparent in all of us, but in each and everyone they are potentially present. We have but to make the effort, and how small an effort it is, to bring them out and to convert a static into a dynamic force. But then, it may be asked how is that effort to be made and along what lines is that force to be applied?

It is as an answer to that question that the Hospital Christian Union would like to work, to do what little it can to aid any who are willing to make that effort and are anxious to follow the Ideal Way.

Nowadays it is, apparently, the fashion to assume an air of indifference to, or even of dislike for, any semblance of religion, especially that of religious organisations. But this, we are convinced, is not a true measure of the quantity or quality of thought which turns on "things that matter." There are many, we know, who prefer to keep their "religion" to themselves; others, again, take a part in the activities of the place of worship where they live, but there must be many who would be glad to join forces with the Christian Union, to be able to feel that in their new life they are not alone in the struggle towards "The Absolute."

It is to them especially that we appeal.

Here, perhaps, it would be advantageous to give an outline of the history and work of our Union. Originated by Dr. Habershon in 1847 the Union commenced as a Bible Reading Circle. In 1853 through the efforts of Dr. Golding-Bird, a famous physician of Guy's, the Medical Christian Association was formed for London medical men. The record of the activities of the Union dates from about 1860. In 1909, after a period of inactivity lasting for some five years, it was affiliated to the Student Christian Movement. This movement is founded on the widest possible basis and is "a fellowship of students who desire to understand the Christian faith and to live the Christian life." From that time until 1916 the Union was actively conducted, but then owing to the War there was a break until 1919.

As regards the work of the Union here in the Hospital for the last year or two there have been two general meetings in each of the winter terms, but not in the summer term. It has been our aim to obtain as speakers at these meetings men of wide and varied experience who should be capable of giving us help and inspiration. Each week a meeting of members is held in the form of a discussion group, the subject of book to be studied being chosen at the beginning of each term. As far as is possible we try to spend, each term, one week-end staying together somewhere away from London where, apart from our humdrum daily life, there is opportunity to get in closer touch with each other and with the Faith we believe in. Such are the activities of the Union. The little we have to give we willingly offer to all who are interested. We only ask for one thing and that one thing is active keenness. What is hampering Progress to-day is not opposition engineered by any forces of evil, no, far worse, it is the apathetic indifference of vast masses of mankind towards "The Truth."

The Pavy Gymnasium.

Gymnastics.

THE Gymnasium is to be found in the Basement of the Students' Club, and any or all of the members of the Clubs' Union are at liberty to use it.

Gymnastic Classes are held on Friday evenings from 4.30 p.m. to 6.30 p.m. from October to April under the instruction of Geo. Baker, M.G.T.I. Classes this season will commence on Friday, October 9th, 1925.

If sufficient members show enough enthusiasm, matches will be arranged for the latter half of the season.

Fencing.

FENCING Classes are held on Monday evenings from 4 p.m. to 6 p.m. from October to April under the instruction of Capt. Felix Gravé. Classes this season will commence on Monday, October 5th, 1925.

A large programme of matches has already been prepared for the coming season, and more members are needed to fill gaps in the old team.

Details of the matches will be found later in the Colonnade on the notice board labelled "Gymnastics."

If you are a member of the Clubs' Union you should use your privilege and come along to learn the art of self-defence.

The Sciences.

Biology.

THE Biology course is primarily intended to be the student's introduction to the science of medicine, and must be regarded as the study of living things in many forms and from various aspects rather than the accumulation of facts about a number of plants and animals. In other words, it is intended as a training in the acquisition of a point of view rather than a stock of facts. Incidentally, also, the student learns a language which is largely his means of expression afterwards. The practice of the Biological Laboratory should give him a facility in the use of scalpel and scissors and a knowledge of methods of preparation and staining of tissues which are the arts of the Dissecting Room and the Histological Laboratory. Lastly, a thorough acquaintance with the vertebrate types should be a great help to him in obtaining an intelligent knowledge of human anatomy.

Cases of instruments are placed on view which include all those afterwards required in the Dissecting Room. A microscope is needed from the beginning, and the student is warned against buying an instrument which will be a handicap to him throughout his career. The difference in price between a good and a bad instrument is only a few pounds. All second-hand microscopes should be submitted to the Demonstrators for inspection and examination of lenses before the purchase is completed.

Chemistry and Physics.

The student is often tempted to regard the study of Chemistry and Physics as one of very little use when once his preliminary examination is passed; but he will find in his study of the sciences of Physiology, Pharmacology and Pathology that a proper understanding of Physical and Organic Chemistry and Physics is invaluable and essential. That this is so, is now fully recognised in the London University curriculum, which should be carefully studied by every London student.

The matriculated student will, in his first year, study Inorganic and Physical Chemistry, Physics, and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the lectures and revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the commencement, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology, and Pharmacology are then taken as the Second Part of this Examination, at the close of the third winter, prior to commencing clinical work in the wards.

From the Conjoint and the Dental student only six months' work is required, but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasised, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. Students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought. "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

Anatomy.

The primary object of dissecting is to render oneself familiar with the structures of human anatomy and their relationships one to another. A good knowledge of human anatomy is essential to the medical student, owing to the great scope for application of this knowledge which is provided by medicine and surgery, and it is no exaggeration to say that the better a man knows his anatomy, the more likely is he to succeed in these subjects. By handling and tracing the structures exposed in dissections, the student is enabled to form mental pictures which greatly exceed in value the plates and diagrams to be found in books, and it cannot be emphasised too much that the knowledge obtained by dissecting is more thorough, more lasting and more definite than the knowledge obtained from text-books, however good the latter may be.

In addition, dissecting trains the fingers and develops the sense of touch, and that delicate muscle sense which is so necessary to aid the eye in carrying out a delicate manipulation.

The basis of anatomical knowledge is a thorough acquaintance with the bones. These can only be learnt by handling the bone and making out each point on it as the description in the book is being read. Hence it is very desirable to possess a half skeleton. (This may be had from Mr. Hancock, the Senior Assistant in the Anatomical Department, who will also supply cases of instruments.)

Full use should be made of the Specimen Rooms, and of the famous collection of Wax Models in the Gordon Museum. The latter are quite unique and of great value to the student who is revising his work.

Men who intend to take the Primary Examination for the Fellowship of the Royal College of Surgeons should attend both the course of lectures for senior students in the second winter session (for times, *vide* notices), and also the special class for the Primary Examination.

Books and Instruments.

The student requires a Manual of Practical Anatomy, in which the structures are described as they are exposed in the course of dissection. The best book for this purpose is Cunningham's Practical Anatomy (3 vols., 12/6 each); it should be read before, during, and after each day's work.

In addition, a text-book of Human Anatomy, in which the subject is described by systems, is necessary. Gray's or Cunningham's Text-Book are both good.

Men who think that they may want to take the Primary Examination for the Fellowship of the Royal College of Surgeons will require a book dealing with Embryology and Morphology, and they will find that Keith's book on the subject contains all that is essential.

The following instruments are necessary:—Three scalpels, two pairs of *dissecting* forceps, and two sets of "hooks." No other instruments are required.

DENTAL STUDENTS.

The detailed knowledge which is demanded of the medical student is essential for the dental student only as regards the head and neck and the bones of the skull. Special demonstrations are arranged each term suitable to the requirements for the L.D.S. and B.D.S. Examinations.

Physiology.

Physiology, which forms the basis upon which scientific medicine, surgery and midwifery rest, will require the most earnest attention on the part of the student during the short space of two years which he can devote to it, and he will find that his understanding of the medical, surgical and pathological problems which he will meet later on varies directly with the thoroughness of his physiological ground work. Some elementary works on the subject, such as Huxley's *Elementary Lessons* in *Physiology*, or the smaller works by B. Moore and by Foster and Shore, should be read in order to obtain a general knowledge of the scope of the subject.

The student should attend the lectures on Physiology (for times, *vide* notices), and also the tutorial classes which are held by the demonstrators. During this time he should read the subject in some text-book such as Starling's *Principles of Human Physiology*, Halliburton's *Handbook of Physiology*, or Howell's *Text-book of Physiology*. While attending the practical classes held during the winter, the student is advised to read *Practical Physiology* (published by Arnold).

Physiological clinical demonstrations for senior students are held each week.

Candidates for the M.B. of London or other Universities must in addition attend the class in advanced practical physiology held twice a week during the second winter session, and this class should also be attended by men working for the first F.R.C.S. examination.

Those desirous of obtaining a wider knowledge or distinction in the second M.B. examination should supplement the course of reading indicated above with original papers in the *Journal of Physiology*, with parts of *Recent Advances in Physiology and Bio-Chemistry*, edited by L. Hill; *Further Advances in Physiology*, edited by L. Hill; *Principles of General Physiology*, by W. M. Bayliss; and Leathes' *Problems in Animal Metabolism*. Revision classes are held by the Demonstrators during the two months preceding the first F.R.C.S. and the M.B. examinations and should be attended by all candidates.

A special course is held for candidates for the Honours B.Sc. of the University of London.

Pathology.

When the student has passed the Second Conjoint or M.B. Examination he is about half-way through his medical curriculum, and he should have gained a working knowledge of the functions of the body in health. This knowledge is an essential preliminary to the study of the most important of the medical Sciences, viz., Pathology, or the study of the functions of the body in disease. Throughout his life the student, if he continues to study and practise medicine, must ever keep pathology in the foreground. It is desirable, therefore, that the study of pathology be begun as soon as possible and continued throughout a medical career.

The subject is an exceedingly large one and it is customary to divide it into several sections:—

1. General Pathology.
2. Morbid Anatomy.
3. Morbid Histology.
4. Bacteriology.
5. Chemical Pathology.

Due attention must be paid to each of these branches.

During the Autumn, Winter and Spring terms systematic lectures and demonstrations in Pathology and Bacteriology are held. Three lectures and three practical demonstrations are given weekly. The practical demonstrations take place at 9 a.m. and the lectures at 12 noon. Regular attendance at these classes is most desirable, and the attractions of the Wards and clinical work should not be allowed to interfere with the laboratory studies.

Classes and demonstrations in chemical pathology should be attended during the tenure of the post of Medical Ward Clerk.

It is essential that throughout all ward appointments no opportunity should be missed of continuing the study of pathology. Every man should, as far as is practicable, follow out the pathology of each and every one of his cases. Is a bacteriological investigation made? He should follow it as far as possible. Is a portion of tissue removed for microscopical examination? He should see the section. Is a chemical examination demanded? He should try and see the analysis carried out. He should never miss an autopsy on any one of his cases. He should read up each case as he meets it. Set hours cannot be given for these lines of study, they must be fitted in as time and opportunity permit.

Efforts should be made to see as much practical work and as many demonstrations in pathology as can be arranged. There are very few days when no pathology can be learned. Post-mortems are held nearly every day—Monday, Tuesday, Wednesday, Thursday and Friday at 1.30 p.m., and Saturday at 11.30 a.m. Attendance at these will amply repay the time expended.

Informal classes in pathology are held three times weekly during the October and May terms. These, though primarily intended for M.B. students are suitable for and should be attended by those sitting for Part I of the M.B. Cantab. and the Final M.B. of Oxford or London University.

During the later clinical appointments certain students may hold a few pathological posts, such as Student Demonstrator, Assistant to the Demonstrators of Morbid Anatomy, Student Assistant in the Bac-

teriological Department. One or more of these may be held in turn, and they prove exceedingly valuable from the learners point of view.

There are many books which might be recommended, and what suits one man does not prove attractive to another. MacCallum, "Text Book of Pathology"; Pembrey and Ritchie, "General Pathology"; with Muir and Ritchie, "Manual of Bacteriology," should prove an adequate combination for most purposes. Other books which may suit other tastes and those which are good are—Adami, "Principles of Pathology"; Adami and Macrae, "Text-book of Pathology"; Green, "Pathology." For morbid histology Grunbaum "Essentials of Morbid Histology" may be recommended.

When the information in these books proves inadequate, as it is sure to do occasionally, some of the articles in Allbutt and Rolleston "System of Medicine" may be consulted, or references to original papers may be obtained from that work, and from the bibliography in MacCallum, "Text-book of Pathology."

Bacteriology.

Bacteriology, although for a time regarded by the clinician as affording information of merely academic interest, has now made a most profound impression upon the theory and practice of both medicine and surgery, and by providing specific treatment for many microbial infections has emphasised the necessity and stimulated the demand for exact diagnosis; and it is towards this direction that the student's interest is guided by the class in Practical Bacteriology.

Particular attention is devoted, from the first instance, to the technique of various investigations undertaken in connection with ward work. Thus the student himself examines sputum, pus and morbid exudates by various methods to demonstrate the associated bacteria. He is instructed in staining methods and the practical work of culture making, and is, moreover, encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out, in order to equip him for the performance in general practice of those more obvious methods of bacteriological diagnosis, which experience has shown are both reliable and valuable. Demonstrations are also given upon the life history of the most important of the organisms which are pathogenic to the human race and by the study of "pure cultures" an attempt is made to impress the chief characteristics of each upon the mind of the student, whilst the changes such organisms undergo or produce when they gain entrance to the human tissues are carefully emphasised.

Throughout the course considerable stress is laid on the further applications of bacteriology to treatment, including the use of various remedial agents such as serums and vaccines which have been elaborated in the bacteriological laboratory for the treatment of disease, together with those facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

Clinical Chemistry.

A class is held in this subject during the period of first three months medical ward clerk, forming part of the course in pathology. Students are recommended to make an early acquaintance with this subject in order that they may carry out investigations of this nature on their own cases, for which purpose accommodation is provided both in the clinical laboratory and in the laboratory of clinical chemistry.

Medical Wards.

To each medical ward clerk is allotted a certain number of beds, and he is expected to examine, and write full reports on all patients who are admitted into these. Occasionally it so happens that a patient is too ill to be examined except by the house-physician and physician, or that a case dies before the ward clerk has had an opportunity of seeing it. Under these circumstances he should obtain the history, and an account of the symptoms, physical signs, and progress of the case from the house-physician, and should base his report on these data. It cannot be too strongly insisted that a report, however brief, must be written on every case, and it is of the greatest importance that the diagnosis and remarks made by the Physician should be entered at once into the report. Moreover, any errors detected by the Physician or Registrar in the original report should be immediately corrected. In the event of a patient dying the ward clerk must obtain the abstract of the post-mortem findings, and carefully enter it up, and it need hardly be said that all clerks should make every effort to see the post-mortem examination on any case they may have seen during life.

The medical wards are open to clerks from 10 till 12.30 in the morning, and from 1.30 till 6.30 in the evening. The Registrars begin their rounds at 10.30, and by that time a clerk should at least have full notes of the history of any new patient who may have been admitted into one of his beds; and he should have a full report in readiness for the Physician in the afternoon. Ward clerks should realise that they are expected to know the details not only of their own cases, but of every patient under their Physician. It is no excuse to plead ignorance because "this is not my case." If only a clerk will take the trouble to make himself conversant with each case in this way, he will find at the end of his six months that an enormous amount of clinical material has passed through his hands, and he will probably have acquired enough knowledge of medicine to enable him to pass the Conjoint Final with but little additional reading. But so many men waste their time through sheer laziness in the medical wards, never realising that they are throwing away experience which would prove invaluable to them later on.

Again the curriculum provides but six months for the study of pure medicine, whereas nine months are allowed for the pursuit of surgical appointments. Further, during their period of medical clerkship, men are apt to take more time than is justified for the study of Pathology and Bacteriology, which they have neglected whilst in the Surgical Wards.

An hour spent in the wards after tea three or four times a week will give opportunities, not only for going over cases and writing up reports, but also for seeing the house-physician tap chests and abdomens, etc. The treatment, too, which each case is receiving, may well be studied at this time.

With the present shortage of beds, no opportunity of gaining clinical experience should be missed, and many of the most interesting and important medical

cases can be seen at Out-Patients. Nothing is more valuable than seeing the new out-patients, writing up their history, examining them and making a diagnosis, before they are seen by the physician.

As regards reading, the best method is to study the text-book account of each disease as one comes across it in the wards or in discussion, and afterwards to compare, if possible, the text-book description with the symptoms and signs presented by the patients. At the same time, the most important medical journals should be read regularly, for by this means only can the student keep himself in touch with modern work. The *B.M.J.* and *The Lancet, The Quarterly Journal of Medicine*, as well as the *Journal of the American Medical Association*, are especially recommended.

Books that may be recommended are the following:—The well-known text books by Osler and Dr. Poulton's revised edition of Taylor, "Medical Diagnosis," by Latham and Torrens, and "Physical Diagnosis," by Cabot. For second three months ward clerks the most important monographs in Allbutt's or Osler's "System of Medicine," and Campbell Thompson's "Diseases of the Nervous System," will prove valuable and interesting reading. For laboratory work Hutchinson and Rainey's "Clinical Methods," or Dr. French's book will be useful.

Surgical Wards.

The appointment of surgical ward clerk is the first of the appointments held by the student during his clinical training. In many ways it is the best of all the appointments as most of the teaching, both by the Surgeon and the Registrar is for his special benefit. Furthermore, a reputation for keenness and ability, earned in these early days will follow him and help him throughout the rest of his time at the hospital. Each clerk is attached to one of the surgical units for three months and it is his duty to record the history and progress of the cases allotted to him.

The wards are open to the student at 10 o'clock and he should have written up the history of the case and, as far as possible, have examined the patient before the Registrar of the unit begins his round at half-past ten, when each case is discussed and the report of the clerk confirmed or amplified.

The student during this period will do well to confine most of his attention to the detection of the physical signs and should procure from the Medical School Office a copy of the red book, entitled, "Instructions in Case Taking, Surgical," which he will find a very good guide to sound and systematic examination of the patient.

While he is acting as ward clerk, the student attends a course in elementary pathology and pharmacology, and at the same time has unrivalled opportunities of seeing dressings and operations, more especially during his "take-in" week. There will be much hard work and many late hours, but there will be also incalculable compensations in seeing and learning the practical points that will stand him in such good stead. He is doing his own work of ward clerk, but must remember that he is learning also to be a dresser.

As a dresser the student spends two periods of three months. While the surgical work is very dependent on the dresser for its smooth efficiency and good results, the dresser must realise that he himself is very dependent upon his work for it is during these six months that he lays the foundation of his surgical knowledge and sound after care. Someone has said that every surgeon should be his own dresser, so that the dresser must appreciate the responsibilities that he assumes in thus deputising for his surgeon.

We have said very little about the actual tasks of the dresser, he should read the "standing orders" relative to his appointment, and from then on everything depends upon himself. He has been given a valuable appointment and one difficult to do well, but one that repays hard work almost more than any other appointment he can hold.

Obstetric Department.

After finishing appointments in the medical and surgical wards the student is posted to the Obstetric Department for six months. During the whole of this time he is also attached to the Physician for the Diseases of Children. The Obstetric Dresser is responsible for case-taking in the wards and at Out-patients, assists at operations, and during one month acts as Extern in the Maternity Charity. The Department has twenty-two beds reserved for gynæcological cases and eleven for the reception of cases presenting complications in pregnancy, labour and the puerperium. At present no beds are available for normal labour, but the pressing need for such accommodation is well recognised by the Hospital authorities and will doubtless be met in the near future. As an intervening link between the Obstetric and Children's Departments is the Salomons Centre, in which the health of mothers and infants is fostered by the practice of preventive medicine. The scope of the work done outside the wards is indicated by the fact that 2,163 attendances were recorded at Obstetric Out-Patients, while 2,025 women were attended in confinements in their own homes.

With this wealth of clinical material it should be possible for every student to obtain a sound knowledge of methods of diagnosis and treatment founded on no small experience. It is, however, recognised by teachers of Gynæcology and Obstetrics that this desideratum is not always attained. It is undoubtedly true that many a young practitioner has to admit a regrettable ignorance of the ailments which afflict his female patients and of the proper management of the pregnant, parturient and lactating woman. And these subjects form the foundation upon which a successful family practice is built. Responsibility for this sad state of affairs hardly rests with the student, but he will do well if he starts his clinical work with the firm determination to avoid the pitfalls that beset his feet. He must realise that practical experience in diseases peculiar to women cannot be acquired in the space of the three months which he will spend in Queen Ward. As he passes from one appointment to another he must resist the tendency to develop the compartmental mind and must endeavour to cultivate a wide outlook on medicine as a whole.

The study of the physiology and pathology of the functions of Woman should be begun at the outset and continued throughout the period of clinical training. The man starting as Surgical Ward Clerk should include among his initial purchases a text-book on Gynæcology, for purposes of reference, and should

make a point of attending the lectures of the Obstetric Surgeons. He should also avoid no opportunity of acquiring the "tactus eruditus" so essential to the accurate diagnosis of pelvic disorders; the inherent impossibility of permitting a class of students to examine women patients one after the other renders it imperative that this experience be gained over a considerable period of time.

The study of midwifery he may well leave until he becomes an Obstetric Dresser; the art of the Accoucheur cannot be learnt from books.

The Children's Department.

Physician-in-Charge, Dr. Cameron.
Chief Clinical Assistant, Mr. A. A. Osman.

In-patient accommodation.—Dr. Cameron has under his care 14 cots in the Children's Ward. On two days in the week, at present on Tuesdays and Thursdays at 2 p.m., Dr. Cameron goes round the ward and gives clinical instruction.

Out-Patient Department.—Children under 10 years of age are seen in the Children's Department at Out-Patients on Mondays, Wednesdays, and Fridays from 9.30 until 1 o'clock. Dr. Cameron attends on Mondays and Fridays at 10 a.m., when clinical instruction is given.

The Salomons Centre for the care of the mothers and children of the Midwifery Charity is now completed.

Oto-Rhino-Laryngological Department.

This Department is organised on the unit system. There are two units, one under the care of Mr. Mollison, the other of Mr. Layton. Patients are seen in the Out-Patient Department, admitted when necessary to the special wards, Dorcas and Christopher, and returned to the Out-Patient Department. This arrangement allows members of each unit to follow up the cases. Mr. Mollison's firm sees out-patients on Tuesdays and Fridays at 11.30 a.m., Mr. Layton's firm on Mondays and Thursdays at 11.30 a.m.

Dressers are appointed to the respective firms, and have every opportunity of becoming expert in the technique of examination of the ear, nose and throat, and of gaining experience in diagnosis and treatment. Large numbers of school children are seen. Minor operations are performed in the Out-Patient Department; these include, amongst others, operations for the removal of nasal and aural polypi, and of tonsils and adenoids, and for the lavage of the maxillary antrum; these operations are performed under the supervision of the Surgeon or the Clinical Assistant.

Twenty-seven beds and six cots are now allotted to the Department and each firm operates twice a week. Mr. Mollison and Mr. Layton "take-in" during alternate weeks and emergencies are admitted under the care of the firm on duty.

The Ophthalmic Department.

The Ophthalmic Department of the Hospital is in charge of the two Ophthalmic Surgeons and an Assistant Ophthalmic Surgeon. They are helped by three Assistants, two House Surgeons and Dressers. The dressers are appointed four times a year for a period of three months, and assist the Surgeons at Out-Patients and at operations, and are responsible for the recording of the cases both in the wards and at Out-Patients. The Ophthalmic Department is an open field for any student to explore as far as he is willing and able, the amount of clinical work being sufficiently great for him to see all the more ordinary and common diseases of the eye in the space of three months.

The student will soon find that he is quite unable to form any opinion of his own, on an ophthalmic case, until he has mastered the use of the ophthalmoscope and can readily and accurately decide what is the refraction of the eye, and if the "fundus oculi" is healthy and normal. The theory of retinoscopy can be taught and is simple; the practice, however, requires constant application by the student before he can hope to obtain any sort of facility in it. The difficulties are mainly initial ones, and any time and trouble expended in mastering them will well repay any man in after life when he has qualified and is in practice.

The Ophthalmic House Surgeoncy is one of the most important in the Hospital, as the Ophthalmic House Surgeon is not only in charge of the Ophthalmic beds, but also of Ear, Nose, Throat, and Orthopædic beds, so that his experience is wide and his responsibility great.

Medico-Neurological Clinic.

The arrangements for the Medico-Neurological Clinic for the Winter Session are not finally settled, but they will be approximately as follows:—

(1) *Elementary Ward Teaching at 2 p.m.* Tuesday and Friday, Dr. Hurst; Thursday, Dr. Hunt; Monday, Dr. Symonds (Neurological).

(2) *Advanced Ward Teaching for post-graduates only at 2 p.m.* Tuesday, Dr. Hurst, Dr. Hunt, Dr. Poulton and Dr. Symonds, combined (Medico-Neurological) round.

(3) *Clinical Demonstrations at 12 noon.* Alternate Tuesdays, Dr. Symonds, Other Tuesdays, Dr. Hurst, Dr. Hunt, or Dr. Poulton.

(4) *Out-Patients.* Medical, Tuesday, Dr. Hunt; Neurological, Wednesday and Saturday, Dr. Symonds.

The Dermatological Department.

Out-Patient Days.—Tuesdays, New Cases, 9.30 a.m. (children); 10 a.m. (adults). Old Cases 1.30 p.m.

Thursdays, New Cases, 9 a.m.; Old Cases, 9.30 a.m.

Wards. There are three male and three female beds in the Medical Wards for dermatological cases requiring careful supervision or treatment in bed.

Instruction in the diagnosis and treatment of diseases of the skin is given in the Out-Patient Department, and clinical demonstrations on selected cases are held from time to time.

The Orthopædic Department.

The Orthopædic Department comprises a large out-patient clinic and ten beds devoted to patients suffering from deformity. Out-patients are seen on Monday and Wednesday afternoons, and Plasters

only on Friday afternoon, and in the Out-Patient Department the student will meet with every variety of deformity, congenital and acquired. Considerable facilities are afforded for experience in the relief and cure of all chronic diseases of bones, joints, muscles, etc. Instruction in the principles and most modern practice in the use of appliances, plaster technique. and the more useful forms of physio-therapy is given by Mr. Trethowan, the Orthopædic Surgeon, and Mr. Lambrinudi, the Orthopædic Registrar. Numerous operations of a minor nature are done, such as manipulations for stiff and painful joints, correction of mis-shapen and ricketty limbs, correction of scoliosis, and immobilisation of tuberculous joints.

The in-patient beds are devoted to the most serious operative cases, such as extensive tendon transplantations, correction of mal-united fractures, bone-grafting, the making of new joints, etc. Guy's is a pioneer in possessing an excellent workshop for the manufacture of every form of splint and appliance.

It is in the Orthopædic Department that the principles underlying the mechanical disabilities of the limbs and spine are emphasised and their explanation made clear, and the experience to be gained here is invaluable. The great utility of orthopædic surgery has become evident to very many during the war.

The Massage Department.

The New Department is now in full working order, and patients are treated between the hours of 2.30 p.m. and 4.30 p.m. on Mondays, Tuesdays, Thursdays and Fridays, and between 9.30 a.m. and 12 a.m. on Wednesdays and Saturdays.

Clinical Demonstrations are given at 2.30 p.m. on Mondays by Dr. Hunt, Physician in Charge, and at 10 a.m. on Wednesdays by Mr. Trethowan, Surgeon in Charge.

The point of interest to Medical Students is to see the work carried out on Patients by Massage and Medical Gymnastics. A large variety of cases are being treated daily which include fractures, stiff joints, dislocations, nerve injuries and disease, lung and heart disease, congenital conditions, and poor development in Children, etc. Students will find interest in following some investigations which are being carried out under the direction of Dr. Hunt, and those who wish to attend in his section of the Hospital should apply to him.

The Tuberculosis Department.

(Dr. Marshall).

The Tuberculosis Department is a reference Department for out-patients suffering from diseases of the chest. Patients attend on three days a week, Tuesday and Friday afternoons and Wednesday evenings. For suitable cases arrangements are made for admission to sanatoria. The patients return to the Out-Patient Department after leaving the Sanatorium. The Department provides extensive opportunities for studying methods of investigating early and doubtful cases of pulmonary tuberculosis, also for observing special forms of treatment such as Artificial Pneumo-thorax.

The Department for Venereal Diseases.

This Department, which was re-organised and greatly enlarged a year ago is now open from 9.0 a.m. to 8.0 p.m. on all week-days, and from 10.0 a.m. to 12 noon on Bank Holidays.

Treatment is carried out for all venereal diseases in women, men and children and patients may be referred from other departments at any of these times.

The total number of attendances during the last 12 months was 30,083.

Students may attend the male section any evening from 5.0 p.m. to 7.0 p.m., and Dressers in the Gynæcological Department may attend the female section on Mondays from 5.0 p.m. to 7.0 p.m. or Wednesdays from 2.0 p.m. to 5.0. p.m.

Demonstrations are held on Thursdays at 5.0 p.m. in the Demonstration Theatre in this Department.

Five Dressers are appointed to the Department every three months.

Practical Pharmacy, Materia Medica, and Dispensing.

One of the many important things all medical students must know is how to write a prescription. It may even be necessary for the majority, when qualified, to be able to dispense the same. All students, therefore, would be well advised to acquire as much knowledge of the subject as they can.

The student is taught, practically, how to dispense the different medicinal preparations; he learns to write prescriptions, due regard being paid to doses and incompatibilities.

The recognition of crude drugs, their active principles and preparations, form part of the course, which is conducted by the Hospital Pharmacist and covers the syllabus of the Practical Pharmacy of the Conjoint, the Intermediate M.B. Lond., the Third M.B.Camb. and the First Oxford M.B.

The Genito-Urinary Department.

Students acting as Dressers in this Department have excellent opportunities of acquiring knowledge which will be useful to them in actual practice and examinations. Out-patients are seen on Tuesday and Friday afternoons.

The Department has 7 male in-patient beds in Christopher, 2 female beds in Queen, and 1 cot in Evelyn.

Students should realise that their attendance at this Out-Patient Department, though not compulsory, is very necessary, as is evidenced by the very advanced state of disease in which some patients arrive for examination.

Electrical and Actinotherapeutic Department.

The treatments carried out in this department include the following:—Diathermy, high frequency, the application of the constant, faradic and sinusoidal currents, radiant heat, and static electricity. Treatment by the Finsen and mercury vapour lamps, and radiotherapy.

A new Carbon arc lamp installation for "artifical sunlight treatment" is expected to be available shortly.

A large number of cases are treated in the department:—Chronic joint conditions, nerve injuries, wasted

muscles, skin diseases, such as ringworm, psoriasis, eczema, and rodent ulcer. There are also a large number of cases of malignant disease undergoing treatment with X-rays and radium.

Dr. Iredell attends in the department daily at 10 a.m. and students desirous of acquiring a knowledge of actinotherapeutic methods should attend at that time.

Dental School.

The Dental Student is supplied at the Medical School Office with the Prospectus, Standing Orders, List of Instruments, Calendar, and Clubs' Union Book.

These pamphlets should be carefully read in order that acquaintance may be made with the general arrangements of the school and the scope of the work upon which the students will become engaged.

Notices regarding the time and place of Lectures are to be found posted up at the main entrance of the Dental Department.

Instruments having been purchased at a dental depôt, the student should satisfy himself that he has been supplied with all of those described in the hospital list.

It is inadvisable to purchase instruments before they are required. Instruments for prosthetic work are required for the B.D.S. course at the commencement of the 2nd year, and for the L.D.S. course at the commencement of the 1st year. Clinical instruments are required for the B.D.S. course at the commencement of the 5th year, and for the L.D.S. course at the commencement of the 3rd year.

Among the various depôts at which instruments may be purchased are the following:—The Amalgamated Dental Co., Broad Street Golden Square, W.C., and 16, St. Thomas's Street, S.E.1; Dental Manufacturing Co., Alston House, Newman Street, W.; and Cottrell & Co., 15, Charlotte Street, W.1.

The course of study for the B.D.S. London covers a period of five years, of which the first year consists of Physics, Inorganic Chemistry, and Biology. The second year is occupied with the study of General and Dental Anatomy, Physiology, Dental Histology, Pharmacology and Dental Prosthetics. The study of these subjects is also continued in the third year, together with Pathology, Bacteriology, and Surgery. Clinical work in the wards, Surgery, Medicine, Anæsthetics, Pathology, and Bacteriology, together with Dressership in the Extraction Rooms, Dental Metallurgy and Dental Prosthetics forms the fourth year's work, and the fifth year is occupied by purely Dental subjects, these being Clinical work in the Conservation Room, Orthodontics, Operative Dental Surgery, and Dental Surgery and Pathology.

L.D.S. students who come under the New Regulations must pass the Pre-Medical Examination in Chemistry and Physics before they can commence their four years' course. Subsequently their first term is devoted to Dental Mechanics and Dental Metallurgy, and it is very important for the student to get a good grounding in the former at this early stage. In the remainder of his first year and the first term of his second year, the student studies Human Anatomy and Physiology in addition to continuing his work in the Dental Mechanics Laboratory. The rest of his second year is occupied by the completion of his training in Dental Mechanics and attendance at the lectures on Dental Anatomy.

Third year students for the L.D.S. commence the clinical courses with a period of probationary work upon the phantom head. The operative course, conducted by a staff demonstrator, is very comprehensive. It includes most of the conservative operations that the student will subsequently be called upon to perform upon patients, namely gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. These operations upon the dummy form an excellent ground work in operative dentistry.

Thereafter the course of work consists in holding and diligently carrying out the work of the following appointments:—Clinical Clerk in the Conservation Room; *Probationary Dressership in the Conservation Room; *Dressership in the Conservation Room; *Dressership in the Children's Department; Dressership in the Ordinary Extraction Room; Dressership in the Gas Extraction Room; Casualty Dressership; Clerk to Anæsthetist.

A student, apart from those holding the post of Assistant Dental House Surgeon or Clinical Assistant, is not allowed to work in the Conservation Room *unless he holds one of the appointments marked* *.

The time varies, according to whether the course for the B.D.S. or L.D.S. is being taken, at which a student will come into actual contact with Hospital patients, but he should always endeavour to be punctual in his appointments with them. There is nothing more irritating and annoying to a patient than to be kept waiting unnecessarily; it also delays to a very great extent the easy working of the Department. Further, the student should remember that the cultivation of a courteous and gentle manner towards all patients will become in the future probably the greatest asset in his private practice.

Dental students will profit by following the practice of the Special Departments of the Hospital, *e.g.*, Eye, Throat, Ear. They will also have numerous opportunities of observing the more remote effects of dental disorders in the General Wards and Out-Patient Department.

Students in difficulties about their work and needing advice are invited to consult the Dean, Sub-Dean, Resident Dental Officer, or any other member of the Staff, who will be pleased to do what they can to promote the interests of students.

Books.

The student who wishes to obtain his books at once should not take the first he sees on any particular subject, but would be wise to consult his demonstrators first. Another source of guidance in the selection of one's books are the numerous reviews which appear in every number of the GAZETTE. These should be studied since for the most part they deal with the latest books available on any medical subject, and in themselves furnish information of current interest and value. The number of text-books is very large, and the choice is a difficult matter to the inexperienced. Roughly speaking, second-hand books are very seldom worth anyone's while to buy, chiefly because medical science is progressing so rapidly that new editions are constantly being published.

The number of publishers of books for medical students is great. Messrs. Churchill publish Taylor, Jacobson, Goodhart, Fagge, and many other well-known works. Messrs. Macmillan publish Allbutt, Foster, and a great number of first-year books; Messrs. Longmans, Green & Co., publish the famous Gray's Anatomy. Mr. H. K. Lewis, 136, Gower Street, publishes a number of medical books, and

has also a medical circulating library which is valuable to students who wish to see all the latest books. Mr. Murray also publishes many well-known medical books, as also do Smith, Elder & Co., Philip & Son, Cassell & Co., Nisbet & Co., and Baillière Tindall & Cox.

All books can be obtained from Mr. H. H. Grattan, in Borough High Street, who is the "official bookseller" to the Hospital. Many well-known books he can supply over the counter; any others desired he will have in an hour or two.

Guy's Hospital Club's Union.

THE formation of the Clubs' Union, by the amalgamation of the various constitutent institutions, took place in the summer of 1891. The objects of the amalgamation were to further the interests of the clubs and societies existing at the Hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription (see Clubs' Union Year Book) to the Clubs' Union, any student of the Hospital can obtain the privilege of membership of the constituent institutions.

The Union comprises the following Constituent Institutions:—Association Football Club, Athletic Club, Cricket Club, Debating Society, Dental Society, Gazette, Golf Society, Hockey Club, Lawn Tennis Club, Gymnasium, Physical Society, Rifle Association, Rowing Club, Rugby Football Club, Sailing Club, Students' Club, and Swimming Club.

On joining the Union a Student is entitled to take part in the activities of any of the above Constituent Institutions. The ground of the Clubs' Union is under the control of the Council, is situated close to Honor Oak Park Station on the Southern Railway, Brighton Section, and to Crofton Park Station on the Southern Railway, South Eastern Section. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. A Fives Court, under the management of the Students' Club, is situated behind the Nurses' Home near the Swimming Bath, and arrangements are made for classes in boxing, fencing and gymnastics in the Pavy Gymnasium. The Rowing Club is affiliated to the London Rowing Club at Putney, and members are entitled to all the advantages of that Club. Meetings of the Debating, Dental, and Physical Societies are held from time to time in the College.

The membership subscription of the Union is five guineas per annum.

Extensive alterations have been carried out in the Students' Club to provide greater accommodation and comfort for the members, and are dealt with in a separate paragraph on the Students' Club.

At Honor Oak Park a new Stand has been erected to seat 800 people, so that now with the two existing small stands there is seating accommodation for 1,000 people. It is hoped that improvements to the Pavilion will be commenced shortly.

As any student can see, these alterations in themselves necessitate an increase in the membership subscription. The Utopian ideal of a new Students' Club may even yet be realised in the future, thus adding another burden to the finances of the Union.

Membership cards are issued entitling the holders to the privileges of membership of each of the Constituent Institutions.

New members should consult the notice boards in the Colonnade for information as to the activities of the various Clubs.

An excellent programme of home matches has been arranged by the Rugby Football Club (*vide* Fixture Cards), and it should be noted that free admission to the ground during matches at Honor Oak Park is granted only to members of the Union on production of their membership cards.

Students' Club.

The premises of the Club include the Smoking and Reading Rooms and the Dining Hall, in the College.

All three rooms have recently been redecorated, and, in addition, alterations have been carried out in the Dining Hall and the Smoking Room. It is hoped in this way not only to increase the accommodation, but also to expedite the service during meal times.

In the Reading Room the periodical cases have been renovated and the paper stands have been brought up from the Smoking Room, where they used to be in a state of decay.

A good supply of papers and periodicals is now maintained, and it is hoped that all members of the Club will assist the Committee by themselves seeing that the periodicals, etc., are kept in good order. The taking of periodicals out of these cases or the removal of papers from the Reading Room throws a lot of extra work on to the Librarian, and members ought not to expect the Committee to keep up a constant supply of papers if these are continually removed as soon as they are placed in the Reading Room.

The Library in the Reading Room has also been thoroughly re-arranged. A new catalogue has been made, and can be inspected at any time.

Notices are posted in the Reading Room stating the regulations of the Library, and students should avail themselves of this opportunity of a good supply of general literature which for once has no connection whatever with medicine.

Through the Library, books may also be obtained from Mudie's Library.

The attention of all members is drawn to Rule 20 of the Clubs' Union:—

"Every member whose subscription is more than one month in arrear shall be suspended from the privileges of membership, and his name shall be posted in the Students' Club. After two months' default, if desirous of resigning his membership, he shall be required to submit his resignation in writing to the Secretary, and shall not be re-admitted without the consent of the Council, who shall, if they think fit, impose a fine of five shillings upon his re-admission."

A list will shortly be posted in the Students' Club of members who have failed to comply with the rules, and the Secretaries of Constituent Institutions will be notified that the members named are not entitled to the privileges of the Union until their subscriptions have been paid.

R. L. DUCHESNE,
Hon. Sec., Clubs' Union.

Sport.

Rugby Football.

Season 1925—1926.

WE now commence our 82nd Season of the Guy's Rugby Football Club. It has been the good fortune of myself to have been connected with the Rugby of Guy's for many years and in 1903 the following was written to answer an enquiry what the prospects of the future was likely to be, as it was thought a stand to hold 150 would be desirable at Honor Oak Park: "The prospects are distinctly good, because Guy's will always command support, but they will not perhaps be so attractive a side in a year or two as many notorious players will by then have gone down." Well, the notorious players went and still have Guy's kept absolutely to the front. Last season, though perhaps not so strong as the year before, Guy's regained the Hospital Cup, and if you look at Wisden's Rugby Football Almanack, 1925—26, you will see that Guy's was reckoned last season the strongest of the London Clubs.

Now what of the new season. All will be well, there are very many players at Guy's and the authorities will comb very thoroughly to find successors to those players of season 1924—1925, who have left us. B. G. Scholefield, N. M. Holloway, E. E. Neser, H. de Wet Vorster gone from the pack; H. Graham-Davies gone from the threequarters; great losses, true, and difficult to replace, but the task is not hopeless.

The officers chosen are splendid leaders and enthusiasm will carry a team far: J. Durr is Captain, V. R. Preen Vice-Captain, L. Parker-Tupling Hon. Secretary. To this latter we would appeal to finally stop the persistent habit of playing all the earlier matches away. Parker-Tupling has already taken up the matter vigorously and in his safe hands all will be done that is possible.

The really attractive home fixtures come late in the season. Royal Naval College once again figure in the home list, otherwise the opposing sides are old friends. One hopes for a fine January—Bristol, Birkenhead Park and Gloucester all come to Honor Oak Park that month.

A great Rugby Captain has passed away since last season, in the person of the late Dr. R. H. Randall, of Beckenham, Guy's Captain 1883, 1884, and for four years after a regular attendant at Guy's home matches. His presence will be greatly missed at Honor Oak Park. Jovial and stirring was his personality and no more staunch Guy's Footballer ever lived.

On Saturday, to witness the Catford match was Dr. H. R. Mullins, Guy's Captain 1909—10. It was great to see the Captain of that famous team home again, or rather back in England, as his real home is South Africa. Mullins walked right into the 1st XV. as soon as he came up from Oxford and played with the utmost regularity. He himself could not play in the Final Cup Tie the year of his Captaincy owing to an operation for appendicitis, but he recovered sufficiently to witness the game and to see his team secure again the Cup. His XV. was a splendid combination, consisting of 3 English Internationals and 1 who afterwards became a Welsh International and about 6 Trials men.

We do not forget that H. R. Mullins was also an enthusiastic supporter for making stands, extra footboards and accommodation generally at Honor Oak Park. He foresaw the necessity of providing a setting for the famous Hospital teams, his work and encouragement in this direction will ever be gratefully remembered by those whose duty it was and is to carry out the same.

Guy's v. Catford Bridge

VERY unfortunate, indeed, was the afternoon of September 19th, at Honor Oak Park, the day appointed for our first match at home. Invariably the season commences with Catford, our nearest neighbours, as opponents. Since the War it has been our good fortune to have a side of such strength that a good margin of points in our favour generally divided us from the score of Catford. Nearly all teams in London suffered very severely from the loss of their brightest and best in the Great War, and Catford were among the greatest sufferers, but now recovery has set in and although on September 19th our visitors still had some sturdy veterans among

them, they had a good leavening of younger players who made the pace much hotter than is usual for so early a match, and especially considering the awful day.

The Guy's team did not shape over well. It was dispiriting to find J .G. Van Schalkwijk unable to play and P . D. B. Spence was also away, while J. Durr, the Captain, has not yet returned after his journey to South Africa.

The game started in a lull between the storms of wind and rain, and we had the advantage of having both at our backs to commence with. During this early period the forwards did very well, but it was difficult for Garland to get the ball away accurately. In the loose, Catford were our superiors; we did not exhibit the dash and abandon of former seasons, though Cameron and Popplewell did their best to infuse some "go" into the side. Once or twice Catford broke away, and on one particular occasion Fellowes-Smith had to race back at top speed to prevent Baker scoring. Preen cut through soon after, but his pass was wide and Steyn showed some pace till tackled heavily. A ground hard beneath and giving on top is always bad for pace, and the rain made handling and punting a lottery. Still there were many splendid touch finders for all that. Bartlett, the Catford back, fielded with accuracy, but Boyle, who deputised for Spence, was not in his best form. We had a narrow escape from an attempt at a penalty goal before half-time, which was taken with the score sheet a blank.

On resuming, the rain began to descend heavily and the wind rose correspondingly. It was a tremendous ordeal for men not yet fully trained and the only score that was registered was a penalty kick which Hutchinson brought off successfully from a fairly long range. It was nearly full time when Jones of Catford dropped for goal, but the effort just failed.

It is useless at this stage to remark on form shown. It was too bad a day to write about individual play, still Guy's will have a good side when the season is a little more advanced when the men get trained and the players get together. We must not forget to congratulate Catford though, on the excellent speed and life they put into their work. It should be a good season for them, and if this prophecy proves correct no one will be more glad than the supporters and players of Guy's. Catford have always been and always will be, fine sportsmen. Score—Guy's, 1 penalty goal (3); Catford, nil.

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, G. R. Mostert, C. L. Steyn, G. J. Clark; T. O. Garland, V. R. Preen; W. H. Myburg, G. G. Cameron, E. W. Hutchinson, J. W. Schabort, J. W. Popplewell, C. Kurtz, D. Radford, W. Hops.

United Hospitals Sailing Club.

THE Sailing Club was fortunate in having delightful weather for the Annual Regatta at Fambridge on August 29th and 30th, when five Hospitals competed for the James Sherran Challenge Cup. The Committee and supporters took up their positions on W. A. Lister's 6-ton cutter "Ariel," which lay at anchor in line with the starting marks. "Albatross" being at the time on her way down from Lowestoft, was not able to take any part in the proceedings. Three buoys were anchored a short distance down the river and the dinghies were sent twice round the course, covering a distance of about three miles. There being at present only two dinghies of the same design, crews were limited to two and the Hospitals sailed by heats.

Everything was ready for the start at about half-past four. The wind was light and rather unsteady from west by north, i.e., down the River, with a few degrees of slant from the north to the south bank. The tide had been flooding for about one hour when Dr. French fired the gun for the first race. London were first across the line in "Sandpiper" and St. Thomas's in "Osprey" followed close behind. Unfortunately, "Sandpiper" fouled the first mark and St. Thomas's, under the impression that the race was theirs, turned and came straight home without completing the course. The Committee, however, armed with the Y.R.A. Rules, declared the race void and ordered an immediate re-sail. This time St. Thomas's got away first and the London boat did not get a chance to overtake them. In the second heat, St. George's ("Sandpiper") got a good start from St. Bart.'s ("Osprey"). St. George's kept their lead until within a hundred yards of the finish when a faulty manœuvre on their part allowed "Osprey" to win by a narrow margin.

On the following morning Guy's ("Sandpiper") met St. Bart.'s ("Osprey") in the semi-final. The wind had not changed in

force or direction, but the tide was now at half ebb. L. P. Tupling and E. H. Roche were the crew. Guy's were the first across the line and led to within a short distance of the first mark when we were struck by an astonishing fluke in the wind. Puffs from all directions alternating with calms swung our boom across from side to side and finally sent us charging up the river in the wrong direction "Osprey" just caught the edge of it, but found a fair wind after only one gibe. Thus we lost much ground and found ourselves about 30 yards behind at the first mark. Rounding the buoys closely we caught up a little in every reach, and in the first beat after the third buoy we shaved past "Osprey's" stern, missing it by inches. There was now a long beat home against the tide to complete the first round. At this stage Bart.'s were unlucky in crossing to the south side of the river where less wind and a stronger tide placed them at a disadvantage. "Sandpiper," by making short tacks close to the weather bank drew far ahead and got home with a lead of a full minute on the first round. Roche then handed over to Tupling who paid off the sheet and ran again for the first mark. Nothing short of an accident could have enabled "Osprey" to regain the lead, and as no accident happened, "Sandpiper" finished the second round with a considerable margin in hand.

Lister then provided the crews with light lunch, and Guy's and St. Thomas's got ready for the final. Guy's again drew "Sandpiper." Both boats were within a few yards of the line when the gun fired, but "Sandpiper" being nearer mid-stream had the advantage of the current and led by a couple of yards at the first buoy. We held our lead to the second buoy, but after rounding it allowed "Osprey" to shoot up between us and the wind. Having thus emptied our sail, our wily opponent proceeded to slip past and gained the lead. At the third buoy "Osprey" led by a couple of yards. In the beat home "Sandpiper" made the mistake of sailing a little too close to the wind, and "Osprey," keeping half a point freer, drew further ahead and completed the first round with a lead of about 30 seconds. In the second round Tupling gained a little in the first reach and rounded the buoys rather closer than "Osprey," but at the third buoy we were still a considerable distance behind. The tide was now much slacker, but in beating home we found it still paid to make short tacks at the side of the river. We strained every nerve to regain the lead. Every inch of tide and every puff of wind was exploited to the full, but although "Osprey" probably lost a little ground by crossing too soon to the south side, we again made the mistake of sailing too close to the wind and failed to overtake them. It was a keenly contested race, but St. Thomas's won on their merits, and G. P. Chandler, who captained the St. Thomas's boat, displayed fine judgment and great skill as helmsman.

From every point of view the Regatta was a great success, and has done much to stimulate keen sailing in the Club. Next year, with more opportunities of practice, and more determined training, an even higher standard of sailing is to be confidently expected.

Our warmest thanks are due to Dr. French and those members of the Club who at much personal inconvenience came down to Fambridge, and braved the Ferry Boat Inn for the night, in order to support the Hospital team.

Hockey.

ONCE again we are at the threshold of another winter session, and the prospects of the various clubs is the only topic of conversation. At the Annual General Meeting held last term the following officers of the Hockey Club were elected:—Captain, C. N. Howitt; Vice-Captain, L. Catchpole; Hon. Secretary and Treasurer, G. C. Campbell; Committee, C. D. Malone, J. E. Willett, R. G. Swiss, R. L. Duchesne, R. E. Smith, and E. T. Conybeare.

Of last season's 1st XI. which won the Senior Inter-Hospital Cup, we still have available the goalkeeper, the half-back line, and two forwards. Thus there will be several vacancies and with the talent available we should build a team little short of last season in strength, whilst the 2nd XI. should be a trifle stronger than the corresponding one of 1924—1925.

There has been one practice game played already, and by the form shown two very evenly balanced teams should result.

All students coming up this month who play hockey will be welcomed heartily and are requested to enrol their names on the notice board in the Colonnade.

This season matches have been arranged for both teams on Saturdays, but the Wednesday games, which have been entered in the fixture list as 1st XI. games, will be "A" matches. That is to say, Wednesday teams will be a mixture of 1st XI. and 2nd XI. players.

In this way it is hoped that full teams will be turned out and regular matches obtained.

Among new teams to be met will be seen Felsted, Kingston Grammar School, Mid Surrey II., etc.

All in the Hockey Club, therefore, look forward to a prosperous season in 1925—1926.

G. C. CAMPBELL,
Hon. Sec.

United Hospitals Hare and Hounds.

On Wednesday afternoons from October to March we sally forth into the wilds of West Wickham, and here, dressed in the minimum of clothes, take the air over some six miles of the beautiful countryside. Nor is the race only for the swift, for the aged and infirm also appear, and armed with courage and half an hour's start, bravely face the wind, rain and mud in the search of vitamins. The more strenuous of us will be training, from the earliest days in view of the Kent Hughes Cup, which is to be held next March. Last year we retained the Cup by 1 Point. This being our fourth successive win since the war, we are more than keen to retain it again this season. Of our last year's team M. E. M. Jago, J. G. S. Thomas and probably J. H. Chitty will no longer be available, but if new men will come along we shall be able to put a strong team in the field.

The runs start from the Railway Hotel, West Wickham. Two available trains leave London Bridge (S.E.&C.R.) every Wednesday afternoon and the fare (cheap return) is only 1s. 6d. The date of the opening run and times of trains will be posted in the Colonnade in a few days time and any new men eager to turn out are advised to get in touch with the secretary as soon as possible.

G. Wm. RAKE,
Acting Secretary.

Golfing Society.

Dr. Cameron's Annual Prize.

THE competitions for the above were played at West Kent Golf Club, Chislehurst, on 9th September, 1925. Unfortunately the weather was very wet, but there was a large entry and the winners came out with very creditable scores under the circumstances.

Scratch Prize, value £2, J. L. Glover, 86+88=174.

Handicap Prize, value £2, J. H. Anderson, 90+84=174, less 22=152 net.

Handicap Prize, 18 holes, E. J. Pye-Smith, 88—9=79 net.

The attention of new students is drawn to the facilities granted by the West Kent Golf Club, Chislehurst, Kent, to members of the Hospital Clubs' Union. They are eligible for membership of the above club on paying the annual subscription of £7 7s.—no entrance fee. The course is quite sporting and is ideally situated both from the point of view of accessibility from London Bridge and of being well out of town.

All the hospital competitions are held on this course. The charges for Guy's men are 2s. 6d. per day and 5s. for the week-end. Payment of £7 7s. of course entitles the member to play at all times during the year without further charge.

It is hoped that several new men will take advantage of these facilities. Further particulars can be obtained of the Hon. Secretary or any of the Committee, or on the notice board in the Colonnade.

Hospital Information, etc.

Guy's Hospital Residents' Ball.

THE Residents' Annual Ball will be held at Claridge's Hotel on Friday, October 30, when Mrs. F. J. Steward has kindly consented to act as Hostess.

The following ladies have promised their Patronage.—The Hon. Mrs. Whitbread, Mrs. Barber, Mrs. Bromley, Mrs. Cameron, Mrs. Chapple, Mrs. Cook, Lady Craig, Mrs. Davies-Colley, Mrs. Doubleday, Mrs. Dowsett, Mrs. Eason, Mrs. Fagge, Mrs. Fawcett, Mrs. French, Lady Fripp, Mrs. Fry, Lady Hale-White, Miss M. Hogg, C.B.E., Mrs. Hopson, Mrs. Hughes, Mrs. Hunt, Mrs. Hurst, Lady Lane, Mrs. Malleson, Mrs. Marshall, Mrs. Mollison, Mrs. Mutch, Mrs. Ogilvie, Mrs. Ormond, Lady Perry, Mrs. Redding, Mrs. Rowlands, Mrs. Scott, Mrs. Shaw, Mrs. Slesinger, Mrs. Symonds, Mrs. Trethowan, and Mrs. Turner.

Dancing will be from 9.30 p.m. to 2.30 a.m., the Clifford Essex Band in attendance.

Tickets: 35s. Double, 21s. single, may be obtained from R. B. Fawkes, President of Residents; W. A. Mill, Vice-President, W. S. Hunt, Hon. Sec. (Dance Secretaries), The College, Guy's Hospital, S.E.1, or

from any of the following—Messrs. E. R. Boland, L. W. Cann, G. J. Clarke, T. M. Fripp, G. T. Hankey, L. W. Houghton, D. J. P. O'Meara, and K. O. Parsons. As accommodation is limited early application is advisable.

Events of Interest for Fortnight ending October 10th.

Monday, September 28th.—Entries close for Final M.B., B.S. Lond.

Tuesday, Sept. 29th.—Winter Term begins. Inaugural Address, "The Human Touch in Professional Life" by "Ian Hay."

First Conjoint and Pre-Medical Examinations.

Thursday, October 1st.—2nd Conjoint Examination, Pt. I. Cambridge Second M.B. Exam. Pt. III.

Saturday, 3rd.—Guy's "A" v. Old Alleynians "A," at H.O.P.

Monday, 5th.—Second Conjoint Exam., Pt.II.

Tuesday, 6th.—Final Conjoint Examination (Medicine). Cambridge D.P.H. Exam. Pt. II.

Thursday, 8th.— Final Conjoint Examination (Midwifery.)

Friday, 9th.—Final Conjoint Exam. (Surgery).

Guy's Hospital Dental School.

WINTER TERM, 1925.

Chemistry, Professor C. S. Gibson.

Lectures.—Tuesdays and Thursdays, 9.30 to 10.30 a.m., in the Chemistry Lecture Theatre, commencing on Tuesday, October 6th.

Practical.—Tuesdays and Thursdays, 2 to 5 p.m. in the Chemistry Laboratory, commencing on Tuesday, October 6th.

(Professor Gibson will meet new students on September 28th, 29th and 30th at 10 a.m.)

Physics, Mr. G. Stead.

Lectures.—Tuesdays and Thursdays, 10.50—11.50 a.m., in the Physiological Lecture Theatre, commencing Thursday, Oct. 1st.

Practical.—Mondays, 2 to 5 p.m., in the Physics Laboratory, commencing on Monday, October 5th.

Dental Metallurgy—

Lectures (Prof. C. S. Gibson).—Wednesdays and Fridays at 12 noon, commencing on Wednesday, October 14th, in the Chemistry Lecture Theatre.

Practical (Mr. Kelsey Fry).— Thursdays at 2 p.m. in the Metallurgical Laboratory, commencing on Thursday, October 8th.

Dental Prosthetics—

Lectures (Mr. Kelsey Fry).—Mondays at 2.30p.m., in the Anatomical Theatre, commencing on Monday, October 12th.

Practical (Mr. Kelsey Fry).— Fridays, at 1.45 p.m., in the Dental Laboratory, commencing on Friday, October 2nd.

Anatomy, Professor Johnston.

1. Junior Lectures.—Mondays, at 9.30 a.m., Wednesdays at 11 a.m., in the Anatomy Lecture Theatre, commencing on Wednesday, September 30th at 11 a.m.

(These lectures will be attended by all students who are commencing the study of Human Anatomy.)

2. Demonstrations—(a) Bones; (b) Soft Parts (The times of these Classes will be announced later).

N.B.—New Regulation: L.D.S. Students, in their 2nd term of Human Anatomy, must attend (a), and may attend (b) if they so desire.

Old Regulation: L.D.S. Students, and New Regulation Students in their 3rd term of Human Anatomy, must attend both (a) and (b).

3. Practical Anatomy.—Daily in the Dissecting Room.

4. Normal Histology.—The next course will be held from January to March, 1926.

Physiology, Professor M. S. Pembrey.

Thursdays, 10.30 a.m. to 12 noon in the Experimental Physiology Laboratory, commencing on Thursday, October 8th.

Dental Anatomy Lectures, Mr. M. F. Hopson.

Thursdays as 12.15 in the Physiological Theatre, commencing on Thursday, October 8th. These lectures will continue until the end of March, 1926.

Dental Surgery Lectures, Mr. E. B. Dowsett.

Mondays at 4.15 p.m., in the Anatomical Theatre, commencing on Monday, October 5th. These Classes will continue until the end of March, 1926.

General Surgery, Mr. E. G. Slesinger.

Times to be announced later.

Marriages.

BENNISON—WILSON.—On September 16th, 1925, at St. James's Church, Enfield Highway, Philip Carr, only son of Mr. and Mrs. Bennison, of Hartlepool, to Brenda, eldest daughter of Mr. and Mrs. Wilson, of Enfield.

BRADLEY—READ.—On September 3rd, 1925, at St. Alphage Church, Canterbury, Eric Alfred James Bradley, L.D.S. R.C.S.Eng., only son of Mr. A. Bradley and the late Mrs. Bradley, of Vale House, Canterbury, to Dorothy Mildred Read, daughter of Capt. and Mrs. C. C. Read, of Sturry Road, Canterbury.

ED.—C. R. E. F.

GUY'S HOSPITAL GAZETTE

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LAST Tuesday, September 29th, Major Beith, known to literature as "Ian Hay," delivered an address inaugurating the new academic year upon the subject of "The Human Touch in Professional Life." Though it was directed chiefly to newcomers embarking upon their medical studies, the Physiological Theatre was packed to its utmost capacity, and the excellence of what Major Beith had to say more than justified the large attendance. The address is reported in full elsewhere in this number, where it can be read in the words of the speaker. It is not an easy thing for a non-medical man to hold forth for three-quarters of an hour to a body of medical students upon their professional careers. Yet Major Beith performed the task with a deftness and a competence which met with the unqualified admiration of all present. Most of us would, in fact, have willingly listened to him for another half an hour. In the alternations between the amusing and the serious, Major Beith gauged the patience of his somewhat exuberant audience to a nicety, and the vigour of the applause he received at his conclusion can have left little doubt in his mind as to the success of the address. Readers of the novels of "Ian Hay" had the pleasure of finding in their author, just that clean, responsive humour and that discerning touch which they had enjoyed in his books, so that in addition to the pleasure of the address, Major Beith provided us with that other subtle and unfortunately rather rare satisfaction of beholding in the flesh an author who lives up to the expectation created by his works.

As most of our readers know the profession from the vantage point of which Major Beith has had best opportunities to observe the magic of the Human Touch is his own, that of the Teacher. In his address he referred to the medical profession as one involving responsibilities greater than all others, except one.

At its best the exercise of the Human Touch by a medical man is confined to the process of re-assuring his patients as to the gravity of their ailments (which re-assurance can only be achieved by him who can enter into the mentality of his patients), and to inspiring them with that elusive though all important attitude called "confidence in one's doctor."

In the minds of most lay patients that we have known, there has existed an ignorance so abysmal of the significance of those little letters which we append to our names, and after which we strive and aspire so painfully, that it is not surprising to find that as often as not their "confidence" bears no relation whatever to the professional qualifications of those who command it. And this opens the door to an abuse of the "human touch" in our profession which is at times comparable to the impostures of advertising and salesmanship to which Major Beith so eloquently referred.

What exactly do we mean when we say that a medical man is a "bluffer" or a "humbug"? Clearly we do not mean that he deceives his patients. No one would call a physician who misled a sufferer from carcinoma as to the nature of his disease by the first of these names. And seeing how important to a patient is the sense of trust and reliance in his doctor,

we should not call a man who, while along other lines doing his best for his patient, made it definitely his object to inspire such feelings, by the second. Neither should we apply either of them to the man who, secretly finding himself at a loss for a diagnosis in a serious case, sought to allay the anxieties of nervous relatives by pretending to a false knowledge.

It is a little difficult to put shortly into words what we mean by these terms. If we were asked for a definition we should perhaps advance the following: A medical man is a bluffer if he deceives, or attempts to impress his patients in order to gain thereby himself, whether financially or in prestige.

The grosser manifestations of imposture are obvious to all save perhaps the wealthy female member of "Society"—or aspirant thereto—apparently the crassest of human types. Thus no one would have difficulty in placing the man who, having diagnosed a trivial ailment which disappeared under a simple tonic or sedative, implied to his patient that he or she had only been saved from a grave illness by the incomparable diagnostic and therapeutic capacities uniquely possessed by himself. Neither could one mistake the type who sought to acquire a reputation for uncanny cleverness by the narration of cures he had effected or by the enunciation of the names of titled or otherwise celebrated personages he had attended, or even, more simply, by regaling his patients with impressive names of diseases or parts of the body.

Though such a man might assure himself that these methods were justified because they created confidence and therefore an expectation of cure on future occasions, yet he could only salve his conscience by deceiving himself as well as the patient. The man who succeeds in this double aim is a humbug. The man, on the other hand, who exploits the boundless ignorance, as well as the credulity, snobbery and emotional susceptibility of his patients, but does so consciously, with no illusions as to his ulterior aim, is a knave,—on the whole, a preferable type, though by definition cleverer and less easily spotted. But there are other more subtle and complicated aspects of the relation between patient and medical man in which the abuses of the "human touch" are less easily detected, and in which, for a conscientious man, quandaries may present themselves.

How then, remembering Major Beith, are we to retain the "Human Touch" when later, while eschewing bluff, humbug and knavery, we embark upon our profession—one, incidentally in which, more easily than in his, that touch may become contaminated.

We suggest four rules. Let us realise that in choosing the medical profession (which in this should resemble that of teaching) we have renounced the aim of amassing large fortunes. Let us try to retain that understanding of the patient's feelings and point of view which we all possessed before we entered hospital, but which unfortunately is apt to become blunted by hospital routine. Let us discourage our patients from forming an opinion of our abilities which is too flagrantly discrepant from that held by our colleagues, who, after all, are the best people to judge—far better than we are ourselves, generally. And lastly let us permit as little difference as their varying intelligencies will allow between our manners towards patients who can pay and those who cannot.

If we can live up to these principles, our "human touch" will remain alive and keen, and, we hope, more or less untarnished.

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We publish elsewhere in this number an article by Mr. Percy Alden, the Chairman of the British Institute of Social Science, upon the Health Week, to be held from October 4th to October 10th. It contains information upon general questions of Public Health which, though not entering into the syllabus for examinations, is of the utmost moment to the country. Every student and medical man with a sense of his public responsibilities should be familiar with the outstanding facts of the annual report of the Ministry of Health, and for this reason we make no apology for publishing Mr. Alden's communication in full.

▭

It is with great regret that we bid farewell to Miss Robbins, probably better known to all as Sister Anne, the late Assistant Matron.

Miss Robbins trained at Guy's and subsequently held many important posts both in this country and abroad before returning to Guy's to take up the duties of Assistant Matron. She has now achieved still more, and we offer our heartiest congratulations to her on her appointment as Matron of the Royal General Hospital, Bristol.

The difficulties which beset those who hold such important posts as Matron and Assistant Matron in a large Hospital must be evident to all who give the matter a little thought. It would seem that if they are to carry out their duties efficiently and conscientiously they are bound sooner or later to acquire some degree of unpopularity. However, it seems that this is not so, for we know very well the great admiration and affection which the Nursing Staff of this Hospital have for Sister Anne. The fact that she was held in such high esteem by those with whom she was most intimately connected in her work at Guy's is sufficient evidence of the great success with which she filled the post of Assistant Matron.

We wish her every success and happiness in her new work at Bristol.

We regret to announce the death of Rupert Cecil Chicken, L.R.C.P., F.R.C.S., who entered Guy's in 1869 and qualified in 1873. He passed away at his home at Sandgate Hill, Kent, on Saturday, October 3rd. We extend our deep sympathy to his wife in her bereavement. A full account of his life will be published in the next number of the GAZETTE.

The Inaugural Meeting of the Physical Society was held in the Physiological Theatre on Tuesday, October 6th. Sir Charters Symonds occupied the chair and Mr. Bellingham Smith gave a very interesting address on "Art in Medical Education."

The meeting was fairly well attended, but the interest of Mr. Bellingham Smith's address merited a far larger audience. We hope to publish an abstract of the address in the next number of the GAZETTE for the benefit of those who could not be there, but we cannot reproduce the many splendid illustrations of old prints that were shown to illustrate the address.

It was a very great pleasure to see the Consulting Staff represented so fully by Mr. Golding-Bird, Sir Charters Symonds, and Sir William Hale-White, who all came to hear the address given by their youngest member.

Events of Interest for Fortnight ending October 24th.

Friday, October 16th.—Commencement of new Ward Appointments.

Guy's Hospital Biennial Dinner at the Connaught Rooms, Great Queen Street, W.C. at 7.15 p.m.

Saturday, 17th.—1st XV. v. Bristol, at Bristol.

Tuesday, 20th.—Last day of applications for M.D. and M.S. Lond. Exams.

Tuesday, 20th.—Physical Society's Clinical and Pathological Meeting, 8 p.m.

Saturday, 24th.—1st. XV. v. Harlequins, at Twickenham. "A" XV. v. London Welsh "A" at H.O.P.

Obituary.

Cuthbert Warner.

THE death of Dr. Cuthbert Warner, announced in a recent issue of the GAZETTE, will have brought sorrow to the hearts of his friends and contemporaries at Guy's. A kindly, conscientious, upright and simple-hearted man, he endeared himself to all who knew him, and whether at the Hospital, in the course of his later work in the Navy, during the War, or elsewhere he was always recognised as a man to be loved and implicitly trusted.

He was bred in the Guy's tradition, for his father, the late Dr. Warner, of Woodford, and his brother, Dr. H. P. Warner, who took on the practice, were both educated at Guy's, and his sister who has held the post of masseuse to New Lodge Clinic since it was opened, received her training in the Massage Department.

Warner was at school at Berkhampstead and from there went to Pembroke College, Cambridge, in 1906. He entered at Guy's in 1909, and after obtaining the Conjoint Diploma, held the appointment of Clinical in 1912. In 1913 he qualified M.B., B.Ch. (Camb.), and held the post of House-Surgeon at the Essex County Hospital. While there he showed his interest in pursuits outside his professional work by undertaking excavations in the Hospital

grounds. Here he discovered some beautiful specimens of Roman pottery, most of which he gave to the Colchester and Stratford Museums. For the first six months of 1914 he was House Physician to the East London Hospital, Shadwell.

On the first day of the war he joined the Navy as a surgeon and served principally with the Northern Patrol. Later he was on escort duty with bullion ships proceeding to America, and contracted paratyphoid on the return journey.

After a period of sick leave he served on H.M.S. *Gloucestershire*. In 1918 he was admitted to Haslar with pulmonary tuberculosis. During the years which followed he suffered much ill-health, always patiently and with cheerful fortitude, but recovered sufficiently to take duty as Medical Officer at the East Anglian Sanatorium, where he worked without pay, and later as R.M.O. at Malting's Farm Sanatorium.

His devotion to Guy's was very great, and this was shown in a generous and practical way by the bequest which he made to the Hospital in his will. For his family and the profession the loss is a very great one. His patients everywhere will remember him with affection and gratitude. For all of us his life and work will remain a shining memory.

The Human Touch in Professional Life.

An Address on the opening of the Winter Session at Guy's Hospital, on Tuesday, Sept. 29th, 1925, by MAJOR HAY BEITH ("Ian Hay"), C.B.E., M.C.

THE Chairman (Mr. Whitbread): Gentlemen, and (if I may so term you without offence) lads of the village—Guy's village—it gives me the very greatest possible pleasure to be here this afternoon in order to welcome and to hear the Lecturer for to-day. Major Beith, to those who are fortunate enough to be able to read, requires no introduction at all (applause). Gentlemen, all of us can read, and we hold "Ian Hay" in the highest possible regard and esteem. We are familiar with that greatest epic of modern times "The First Hundred Thousand," and we are all extraordinarily thankful that those magnificent men had a chronicler who was able to depict with such an unerring touch their little foibles and defects and their qualities. He was in every way a magnificent man who did a magnificent work. In these days of Communism and strife we want all the men of Major Beith's stamp that we can get, men who not only do their bit with the utmost efficiency, but have the force of example and precept to show other people the way they should do theirs. There is a very urgent demand for men like your Lecturer of to-day. I shall only tell Major Beith you are an extraordinarily good audience to speak to; you can laugh at one of my stories, and I cannot pay a higher tribute than that. I am sure you will give your earnest attention to what is worthy of your close consideration, and I congratulate you on being

present and I congratulate Guy's on getting Major Beith to talk to us this afternoon (applause).

Major Hay Beith: Mr. Chairman and gentlemen,—First of all, let me say how greatly honoured I was by your invitation to me to come here and address you this afternoon. My pleasure, however, was somewhat diluted by the fact that I am not in any way qualified to address a medical audience, except to this extent: that long ago, at Cambridge, I once took a course of chemistry and physics, as a sort of antidote to a prolonged dose of the classics, and also because, in those far-off undergraduate days, my lot was cast and my circle of acquaintance lay very largely among gentlemen who kept a human skull upon the mantelpiece, and a skeleton, or parts thereof, in the cupboard, and whose soaring spirits only drooped—and that for but a moment—when their thoughts turned towards a certain mysterious and awful ordeal which lay waiting for them towards the end of their third year, called the second part of the second M.B. Moreover, it was in that noble company that I first made the acquaintance of my friend, your friend, our friend, Dr. H. C. Cameron (applause), through whose offices—good or evil for you—I find myself here this afternoon. We were a band of brothers in those days, having all things in common. Some of us were studying classics, some mathematics, some theology, some medicine, some, of course, were merely hoping to be excused the General, or be allowed an ægrotat in botany; but just as you can distinguish the voice of the saxophone above all instruments in a jazz band, so medical interests and medical "shop" overtopped everything else. If one of our medical friends performed the feat of passing his "Bones," the victory was celebrated by everybody impartially, theological students and all (laughter). I became well versed in the airy chatter and gossip of what we called in those days—and I suppose are still called—the "meat-shops," and I shall never forget the scene of enthusiasm which took place the first evening of term, when an excited second year man, one of those busy persons who are always full of what we will call, not inappropriately, "inside stuff," burst into my room, where I was entertaining a few medical friends, seized Cameron by the hand and shook it violently, saying "Congratulations, old man, you have got a head and neck!" It is upon such slender foundations as these that I am endeavouring to build up sufficient courage to address you this afternoon.

I have labelled my discourse "The Human Touch in Professional Life," by which I mean character or personality, as compared with technical knowledge and ability: one must not be regarded as a substitute for the other. No force of character, no attractiveness of personality in this world can ever compensate for ignorance of one's job, in your profession of all professions. Personality is useful, sometimes it is an invaluable appendage to a man's professional equipment, but it can never constitute an equipment in itself. I emphasise this rather patent fact because there is a general and dangerous tendency in the world to-day to exploit this personality to an absurd degree, to the neglect and detriment of real training and thorough knowledge. In other words, we live in an age of advertisement, in an age, that is to say, when people are tending more and more to expend their energies not upon putting quality into their goods, but upon thinking out ingenious and profitable methods of disposing of those goods. The theory appears to be that if you advertise long enough and loud enough, it does not much matter whether the goods are good or not. Therefore the art of advertising has been lifted to one of the high and solemn mysteries. There are colleges and institutions in the world to-day where you can pay fees and receive instruction and obtain diplomas in this particular art, that is to say, of ascribing to an article virtues which it does not possess, so persistently and so convincingly that ultimately you succeed in unloading it upon somebody who does not want it. I speak with some feeling in the matter because I am the unhappy proprietor of 28 volumes, in half-morocco, of an obsolete encyclopædia which I was recently dragooned into buying on the instalment plan by those exact methods. From this you will realise that the whole aim of modern advertising, whether you are selling encyclopædias or merely trying to get into Parliament, is to delude your hearers into confusing promise with performance. And the odd part of it is that the advertiser frequently ends by deluding himself. For instance, on the premises of our most progressive railway companies to-day you may possibly have observed pictorial posters depicting an express train, in three colours, dashing along a highly-burnished permanent way at 70 miles

an hour, supported by alliterative captions on the subject of Sunny Southern Sunshine Specials, or something of that sort. The railway companies in question obviously regard that poster as an adequate substitute for an efficient train service (loud laughter) and what is more, they can hypnotise most of their passengers into agreeing with them. We succumb to political wiles in the same fashion. One politician gets up and promises us he will take off a shilling from the Income-Tax, and another politician promises to make the reduction two shillings in the £, and so fascinated are we by the glamour of advertisement that we promptly vote for the second candidate although we know, in our hearts, that neither of them has the slightest intention of taking anything off the Income-Tax at all.

So if you want to get on in this world quickly, you must advertise, and if you want to advertise successfully the best way is to get into personal contact with your victim, and in personal contact it is your bearing and your manner which will count, in other words, the human touch. Therefore to be a successful man of business nowadays you must have personal magnetism or charm. If you have not got charm, you must acquire it; in other words, you must apply to people who can sell it to you, and there are such people (laughter). The other day I came across an invaluable book—obviously of American origin—in which was set forth the whole art of making yourself attractive, and even lovable, to people to whom you want to sell something. In anticipation of my next interview with my publisher, which was now overdue, I studied this little volume very carefully.

It started with a sort of examination paper in which you were asked forty questions about yourself, which you had to answer honestly and to the best of your ability and then allot marks to yourself for each. Here are a few. I pass them on to you, because I feel that it is not fair to keep such pearls to myself.

1. Do you wear colours that are best suited to your type? If so, credit yourself with 5 marks.

2. Do you start to work every morning with clean finger nails, clean boots, shaved, trousers pressed, suit and linen spotless? If so, credit yourself with 5 marks.

3. Can you walk across a roomful of guests, speak to the hostess and conduct yourself without awkwardness or embarrassment? If so, credit yourself with 5 marks.

4. Do you gesture from your shoulders instead of from your elbows? See page 135. Being entirely baffled by this question, I turned to page 135, and discovered that to make gestures with your elbows is wrong, because if you do that, you do not include all the people in the room. I had never known that. Anyhow, not knowing what part of my anatomy I do gesture with, I gave myself no marks, and passed on.

5. Do you avoid using cheap, boastful expressions? Are you making some effort to improve your vocabulary? Do you own a good dictionary? If so, credit yourself with 5 marks.

I did not quite grasp the connection between these three questions, but I gave myself three marks, for, after all, I do own a dictionary.

6. Do you give a certain amount of thought in advance to your conversation with people you know you are going to meet, so that you will be sure to talk of things which are of interest to them? (See Chapter 7.) I looked up Chapter 7. It said: Here are some general questions with which to open a business conversation. Others equally interesting, will occur to you: A. How far back can you remember? B. Do you fear death? C. How is your wireless working? D. How far do you consider you are indebted to your parents for all they have done for you? E. Do you think doctors should charge their patients in proportion to their incomes, or should they have a standard fee for their services?

I did not think any of these questions really interested my publisher, so I passed on to the 7th question, which said: Do you avoid making a public display of your affection for your wife or sweetheart? I unhesitatingly credited myself with 5 marks (much laughter), and closed the book. There were 33 more questions as good as that, and I need not trouble you with extracts.

However, I think I have made it sufficiently clear to you what a complicated thing it is, in these days, to fit yourself to be a successful and lovable salesman. Still, at the back of all that rather fantastic stuff there is a real strain of common sense. Of course it is of importance, of enormous importance, to be able, on the top of your intrinsic and technical merits, to suit yourself to your company and employ your natural gifts to the best advantage; and in the cultivation of the healing art—your art—I think you will admit that the human touch is of incalculable importance.

I suppose it is true to say that as much healing is wrought by suggestion as by physic, and that many a patient gets well just because he believes in his doctor. We need not go all the way with Samuel Butler, who tells the story, somewhere, of a man who swallowed a doctor's prescription in the belief that it was actual medicine and was thereby immediately cured of a serious illness; but the human touch does count, all the time. A doctor is, above all things, a propagandist. To a certain extent he is always playing a part, backing up the resources of science by the arts of the skilled advocate, mixing the powder with the jam, in such proportions that the powder escapes notice yet achieves its purpose; doing everything in fact, that is morally justifiable to create, maintain and increase the confidence of the patient in his own chances of speedy recovery.

This brings us to the real heart of our subject, consideration of the gentle art of handling patients. I can say something about this because though I have never been a doctor I have occasionally been a patient. And I agree with you right off that patients are a most unreasonable tribe of beings. You can divide them into many classes, but we will take three for the purposes of illustration:

1. Patients who are really ill. We need say no more about these, because they give little or no trouble.

2. Patients who are rather ill but do not believe in doctors, and tell you so, quite frankly. You know the man who says to his doctor "I only called you in because my wife insisted on it; I know, as well as you do, that this whole medical business is mere mumbo-jumbo, mere quackery, so don't start taking my blood pressure or doing any conjuring tricks with thermometers and stop-watches. I know how my inside works better than you do, because it is my inside, not yours. You can leave me some medicine if you like, just to save your face; but I warn you I shall throw it out of the window." That is the honest, bluff, hearty type, the type that has made the name of Englishman respected all over the world (laughter). The simplest and most profitable way with this individual is to employ the soft answer. You say "My dear fellow, I agree with every word you utter. Of course you are right; all medicine is nine parts faith and one part colouring matter, you and I both know that, so there is no use my prescribing in the ordinary way. It is a treat for a doctor to encounter a patient like you with whom he can be quite frank, a patient who does not want things wrapped up in meaningless phrases. You, as of course you probably know without my telling you, are suffering from —." Here you give him the name of his complaint in Latin—two longish words, if possible, with a false concord thrown in—and you add a few scientific terms about reflexes and secretions, and wind up, if possible, with an incorrect chemical formula. After that, he will simply feed out of your hand. Technical terms are the medicine he wants. Many a man will positively enjoy a tennis elbow if he is allowed to refer to it in the club as "my synovitis."

Then we come to a third class of patient—the patient who thinks he is going to die forthwith, if not sooner, and has to be cheered up. In that connection I cannot resist calling, or recalling, to your notice one of W. W. Jacobs's stories about that immortal trio Sam, Peter Russet, and Ginger Dick. I want to read you an extract. Sam, you remember, was taken ill.

"And," continues the Night Watchman, who tells the story, "like most 'ealthy men who get a little something the matter with 'em, 'e made sure 'e was dying. 'E sent Peter out for a doctor, and in about 'arf an hour Peter came back with a sandy-'aired young man with red eyelids and a black bag. 'Am I dying, sir?' ses Sam, after the doctor had listened to his lungs and 'is 'art, and prodded 'im all over. 'We're all dying,' ses the doctor, 'only some of us 'll go sooner than others.' Peter and Ginger Dick took turns to be with Sam that morning, but in the arternoon the landlady's mother, an old lady who was almost as fat as Sam 'imself, came up to look arter 'im a bit. She sat on a chair by the side of 'is bed and tried to amuse 'im by telling 'im of all the death-beds she'd been at, and partikler of one man, the living image of Sam, who passed away in his sleep. It was past 10 o'clock when Peter and Ginger came 'ome, but they found poor Sam still awake and sitting up in bed propping 'is eyes open with 'is finger."

Well, that's a good example of how not to do it. What a patient of that kind wants is to be reassured, and that is where technical knowledge will not avail you so much as a cheerful presence and a confident manner. And here,

speaking from my experience as a patient, may I be allowed to drop one humble hint to future G.P.'s? Humanity fears one thing above all others, the unknown. What frightens a patient most of all is to have nothing definitely wrong with him. Once a definite cause has been assigned to his ailment, once you have hung a label upon it, "marked in plain figures," and given him something physical to hold on to, he will endure almost anything. So if you can, be explicit with him on this point, even though you may not have the slightest idea what is the matter with him, tell him something that will keep his imagination from soaring into the regions of unhealthy speculation, and you will thus do him good. Anything will do. A man is never frightened of a thing he knows all about, or thinks he does. It is a good plan sometimes to be symbolic, to illustrate a patient's condition by some mechanical analogy. You can refer to trouble in his engine-room, or explain that his dynamo wants tuning up, or his accumulators recharging, or that an overstrained spring must be relaxed; something tangible and concrete like that—something he can bite on. Tell him he has a Rolls-Royce body, but there is water in the carburettor, or the petrol pressure is faulty. That will cheer him up ten times more than telling him that his malady is functional and not organic. It is strange the solid comfort a nervous patient can derive from having his interior compared to that of a motor-car, but the comfort is there —especially if you tell him he's a Rolls-Royce.

Now, gentlemen, you must not think, because I am referring lightly at times to your responsibilities, that I do not realise very thoroughly how great and solemn those responsibilities are going to be. Yours is, I suppose, with the possible exception of the teaching profession, the most responsible profession in the world; and for that reason you may be proud and thankful that you spring from the race you do, because our race possesses, in a peculiar degree, a quality which is indispensable to men of your calling: initiative, the ability to act without running to somebody else for instructions, readiness to assume responsibility as a mere matter of course. The Englishman possesses a strange capacity for reliable work in a subordinate position, or rather, perhaps I should say, a capacity to perform a task efficiently and conscientiously without any supervision from higher up. Who are the men who keep the wheels of Empire running to-day? You may safely say they are not the people at the top. As a nation, it is a historical fact, we have seldom been well led or wisely directed in all our history. The main strength of our country lies, always has lain, in our men-at-arms, our yeomen, "other ranks," as they call them in the army, whether those ranks be military, or industrial, or administrative, or professional. Most of our successes, whether in war or in peace, have been what we are proud to call soldiers' battles—the victories of the average man—the average Englishman. He is not brilliant, he is not spectacular, but you can rely on him. In South America they have a phrase, *Palabra Inglesa*—"on the word of an Englishman," and it means, with them, "Honour Bright." That is the most splendid compliment ever paid by one nation to another, and it is addressed in the main to the man whom we are considering now. We ourselves depend on him to such an extent that we take him as a matter of course—and we are seldom disappointed. The civil servant, the platoon commander, the managing clerk, the junior form-master, the slum curate, the country doctor—these are they that propel the ship of State. Up above, on the quarter-deck, looking portentously wise, and occasionally quarrelling for the possession of the helm, you may behold their superiors, but these friends of ours remain below the water-line, unheeded, uncredited, and to a large extent unsupervised and that is the main point—they see to it that the wheels go round. They grumble and grouse, and tell one another they are "fed up," and usually they are, but they carry on, because initiative and responsibility are in their very blood (applause). They expect no thanks, and they are not disappointed (laughter) . But the ship goes forward, and that is all they care about. Win or lose, sink or swim, in good times or in bad, that is what counts—the ship, the cause, the job, and not themselves.

Our Empire, like most of our institutions, came into existence in a most casual fashion from this very cause. It was never acquired officially, it was never built up on the ambitions or intrigues of kings and ministers; it was founded on the efforts and the sacrifices and the hard work of the common man, men whose very names have perished, who went out from our little island because the spirit of adventure and responsibility bade them go forth and better themselves, and who planted the seeds

of enterprise and justice all over the world, to the complete effacement of themselves, and, too often, at the cost of their own lives, men in other words, who set the cause above the price. It was only when, through their efforts, our interests in this quarter of the globe or that grew too unwieldy or important for private control that the British Government, with a deep sigh, and an anxious eye on the taxpayer at home, reached out a reluctant hand and took official command. To-day, all over the world wherever our flag flies, men you never heard of, and never will hear of, are shouldering responsibilities, making rapid decisions, improvising working expedients, getting the wheels round somehow—not for any special honour or glory which will accrue to them, but because it is their job, and it is up to them and them alone to do it. So they do it, by sheer force of character, of personality, the human touch. These are the things which bring them through. And foremost among them I salute the members of your profession, because that profession bears as heavy and proud a share of those burdens and those responsibilities as any.

I think I have said all that I intended to say, or something like it, to you, and it only remains for me to wish you good luck in the career which you have chosen. Many branches of that career are open to you, and no one of you knows exactly what the future holds in store for him. It may ultimately land you in Harley Street, or at the head of a great hospital, it may make you a student of research, devoting your life to studying a single disease or the isolation of a single germ. It may send you over the seas as a medical soldier or sailor, or as a member of a scientific expedition to a far Tropical country, or it may simply plant you down as a G.P. in some manufacturing town, working for 18 out of the 24 hours, with a large, troublesome and, for the most part, entirely unremunerative family of patients, running to you to have their hurts healed or their fears allayed. But wherever Fate may place you, whether high or low, however hard you may have to work, whatever difficulties and discouragements you may have to encounter—and you may be sure they will come—nothing can take away from you the sheer greatness of your chosen profession, one of the few essential trades on earth, which goes right down to the roots of human existence. You are the standing army and navy of humanity, your life is one long campaign on behalf of other people against ignorance, dirt, cruelty and disease. We can never do without you. You bring us into the world, you attend us on our voyage through life. At any moment we may call upon you to dry-dock us, or more frequently assist us to carry out that most ticklish of undertakings, the execution of repairs while under steam. And when the time comes for us to pass beyond the horizon of human life, we call upon you again for the last time, to assuage our sufferings and soften the pangs of death.

You see, we depend upon you in all things and trust you implicitly. To your hands we commit the innocence of our children and the honour of our womanhood, and it is the special glory of your profession that those commitments are made without question, as a mere matter of course because we know they will never be abused. For generations that tradition has been handed down, and it is to that tradition and heritage that you are now about to succeed. Here in Guy's Hospital you have a great history and a wonderful record. You were at work 200 years ago, and to-day your activities are greater than ever. Only a few years ago Guy's men were doing their duty on every fighting front of the war, and Guy's nurses too. I well remember at the Battle of Loos, almost ten years ago, a specially-constructed communication trench for stretcher cases only, which was called "Guy's Avenue." And you have a proud reputation for team work and *esprit de corps*, whether in your work or in your play, as those who have encountered the Guy's football XV. have cause to remember. It is altogether a great tradition and a great heritage, and I say to you "Go on and prosper."

And one last reminder on the matter of my text. You will note I have heroically refrained, throughout this rambling discourse, from urging you to cultivate what is known as "an agreeable bedside manner." I still refrain. But let me remind you once more that a few words of cheery commonsense and of unprofessional informality will often do more for the average patient than the whole of the British Pharmacopœia. So steep yourselves as deeply as you like in the knowledge and lore of your craft, but do not forget the human touch (loud applause).

Professor T. B. Johnston proposed a cordial vote of thanks to Major Beith for his address, and this was carried with cheers.

Health Week, Oct. 4th—10th.

Towards a Healthy Britain.

UNDER the patronage of their Majesties the King and Queen, Health Week will again be observed throughout the British Empire from October 4th—10th. Up-to-date municipalities are organising lectures and demonstrations. The clergy in the churches and teachers in the schools will help in drawing attention to the great problems of health.

The amount of preventable illness in the country is alarming. Sir George Newman reports that during 1924 no less than 23¼ million weeks' work was lost through sickness by members of approved societies alone. Besides the pain and suffering that these figures represent, the cost to the country must be enormous. Sickness and disablement benefit amounted to £12,909,000, and to this we must add the value of the work lost, and the cost of medical treatment and care during incapacitation. In its present position the country cannot afford this annual drain upon its resources, and, if the laws of health were better understood, it would not occur. It is a pity that people cannot be persuaded to see a doctor more frequently when they are apparently in good health and undergo periodic examination, as by this means much sickness might be prevented.

During Health Week much may be done to drive this lesson home, to spread a knowledge of the laws of health, and to persuade people to live more regular, temperate, and therefore happier lives. The last few years have shown a remarkable improvement, and there is no reason why this should not continue. On the whole people are eating more sensibly. In the cheaper London restaurants it is most noticeable how the salad habit has grown. There is an increasing demand for uncooked or lightly cooked foods, which contain "stored sunlight" and the vitamins which are so necessary to health. The orange is coming into its own, and we are less inclined to eat tinned foods from which the most valuable elements have been removed.

Another factor which makes for health is the growing realisation that sunlight is the best tonic in the world. Here the newly-formed Sunlight League has done excellent work during the past year, and has given us a scientific reason why the summer holiday habit contributes, as it undoubtedly does, to our personal efficiency. We are told that a skin thoroughly tanned enables us to resist extremes of cold and heat, and makes us less liable to colds, catarrhs, and influenzas that add so enormously to the statistics of winter incapacity. Some ingenious person has invented a new glass called Vitaglass, which will let the ultra-violet rays pass through our windows, and apparently they are the rays that really matter.

Good luck, then, to the Sunlight League and to its young but very flourishing brother the National Playing Fields Association, which is going to see that all our young people have ample opportunity for fresh air and exercise. No work is more urgently needed, and something will certainly be done now that the Prince of Wales and his brothers have placed themselves at the head of a powerful organisation for the purpose. Birmingham already is arranging that all its elementary school children shall have access to suitable playing fields, and it is high time that London and the other great municipalities followed suit. Such efforts should have the active help of all good citizens.

Now that attention has been directed to the need for sunlight and fresh air, it may be hoped that some effort will shortly be made to tackle the problem of smoke abatement. Our English climate is a by-word with our Continental neighbours, but an island people would manage to survive mere humidity. There is little danger in an occasional clean mist, but we have no excuse for permitting "pea-soupers" to occur even on the banks of the Thames.

About 400,000 insured persons are incapacitated each year by tuberculosis, pneumonia, influenza, bronchitis, bronchial or nasal catarrh, or diseases of the respiratory system. Over one-third of the sickness of the country is due to these causes, and the total might be much diminished if we dealt effectively with the smoke nuisance. It is a national disgrace that foreign visitors should notice and comment on

the fact that there always seems to be a pall of smoke over an English town. This state of affairs would not be tolerated anywhere else in the world. It is an offence against civilisation, and we pay heavily for it in invalidity and general loss of efficiency.

Fogs not only stifle and blind us but they cause the loss of many thousands of pounds. They are as effective as a great strike in holding up transport and disorganising communication. Even if smoke were not the great cause of fog, we ought not to deprive ourselves of those short wave lengths of sunlight that endow us with health and fortify us against disease. We ought not to let small irritating particles enter our lungs or float about in the upper atmosphere. We are having a hard struggle to maintain our place in the industrial sun, and we may well ask how long the politicians will let us labour under unnecessary handicaps. As Sir George Newman says. "National ill-health loses time and reduces production as well as resulting in suffering, discontent and premature death."

Here our very misfortunes are likely in the near future to teach us a lesson. The critical state of the coal industry is compelling us more and more to consider new and less wasteful ways of using coal. When we burn it in open fires we not only create the smoke pall, but we lose the greater part of the heat produced, and destroy the most valuable constituents, which might be utilised for the national good in a thousand and one ways. By the use of gas and electricity, and especially gas for cooking, we may conceivably save the country as much money as we now pay in Income Tax, and it is certain that we shall all be healthier.

Further, we may help to make a healthy Britain by well-considered plans for the clearance of slums and insanitary areas, which are the breeding places of disease, and, above all, by maintaining our public health services in the highest degree of efficiency. These are matters that should have the constant attention of every good citizen. We have made much progress during the last few years, but the Report of the Chief Medical Officer to the Ministry of Health suggests that things are still far from satisfactory. In England and Wales there are 1,920 local sanitary authorities, but only 350 of them have full-time Medical Officers of Health. No less than 1,195 part-time officials try to reconcile their duty to the public with attendance on private patients.

Sir George Newman points out the disabilities under which a part-time medical officer may suffer. He says of him, "He is individualistic rather than communal in outlook; he finds it difficult equally to keep pace with his clinical work and his administrative duties; his interest as a private practitioner may conflict with his public duty; the proper exercise of his public duty may bring him into conflict with his fellow practitioners; in times of epidemic he cannot find time to fulfil his dual function to his patient and to the community; as a private practitioner he has often not had the special training in public health necessary to efficiency as a Medical Officer of Health."

We are told that "diphtheria and smallpox can both be harnessed," but we almost seem to prefer not to control them. In 1924 we had 3,797 cases of smallpox, and we had 41,980 cases of diphtheria and 2,500 deaths. Apparently we choose not to exercise to the full our powers of prevention." To a casual observer it seems that Parliament might well deal once again with the whole question of public health administration. Certainly we have something to think about and to discuss during Health Week, 1925.

It is cheering to remember that progress can be reported during the past year in connection with the study of *Cancer and its Causation*. One of the cruellest enemies of mankind may yet have a successful offensive directed against it, for the first step in the cure of any disease is to find its cause. Thanks to the untiring efforts of two English workers, Dr. Gye and Mr. Barnard, a virus has been discovered and much proof is forthcoming, that given a certain unhealthy condition of the tissues, the dreaded disease may be produced. This knowledge is a great step forward, and even if years should elapse before any drug is found that acts directly on the germ, we now have more incentive to keep our bodies and tissues healthy, knowing that thereby the virus may be robbed of its opportunity to do harm.

The foundations of health can only be "well and truly laid" in childhood, however, and the nation is gradually realising this more and more as evidenced by the increasing care of infant and child life. If it be true that "it is never too late to mend," there is equal truth in the fact that "it is never too early to begin." We have now an effective State organisation aided by voluntary associations. which casts a watchful eye over the earliest dawnings of human life and follows up dur-

ing the various stages of childhood and adolescence. Such work is already bearing fruit. The present century has witnessed a dramatic reduction of the infant mortality rate from an average of about 150 per 1,000 births to about 70 per 1,000. Children are healthier, too, taller and heavier, on the average, than they were. Have we not our ante-natal care of mothers, our efficient maternity hospitals, or welfare centres for infants and for the pre-school child—nursery schools, the medical inspection and treatment of school children, together with numberless other activities?

Infant welfare centres alone number 2,112 and are spread over the length and breadth of the country, and when it is remembered that the instruction of the mother is as important a part of their work as the actual care of the child, good results must follow in the future. Instruction in health and the cultivating of a health conscience from earliest years is the next ideal to be aimed at, and the movement is already on foot. The teaching of mother-craft to school girls has been strongly urged by the Ministry of Health, the Conference of Head Masters has drawn up a syllabus for the teaching of health in public schools, much is being done by other educational authorities. The subject is made live, interesting and practical and compares favourably with previous teaching on these subjects which was too dull to rouse any enthusiasm.

The day is perhaps not far off when we shall all be health experts, and happier, more useful and more successful in life, as a result. Let us use Health Week to the best possible advantage.

Guy's Hospital Nurses' Representative Council

UPON the recommendation of the Matron. the Court of Committees has approved of the institution of a Nurses' Representative Council in order to afford an opportunity of discussion between the Matron and the representatives of the Nursing Staff on questions affecting the well-being of the Nurses.

The Court has approved of the following regulations for the Nurses' Representative Council:—

REGULATIONS FOR A NURSES' REPRESENTATIVE COUNCIL.

1. Subject to the powers vested in the Governors of the Hospital under the Act of Incorporation, the Nurses' Representative Council shall be elected annually in November, and shall consist of:—

The Matron.

3 Representatives elected by Probationers who have been in training for a period of not more than one year.

3 Representatives elected by Probationers who have been in training for a period of one year but not more than two years.

3 Representatives elected by Probationers who have been in training for a period of two years but not more than three years.

2 Representatives elected by the Staff Nurses.

2. Every candidate for election as a representative shall be nominated in writing by not less than two nurses, and every such nomination shall be transmitted to the Secretary of the Nurses' Representative Council at least seven days before the day appointed for the election.

3. The list of candidates will be posted in the Nurses' Home, and on the day of election the representatives of each year shall be appointed by ballot by the nurses of that year.

4. The Nurses' Representative Council shall meet from time to time, not less often than every six months, in order to afford an opportunity of discussion between the Matron and the representatives of the Nursing Staff on questions affecting the well-being of the nurses.

5. Subjects for discussion shall be placed on the agenda paper, for circulation before each meeting, either by the Matron or by any other member of the Council. Matters of personal conduct or discipline shall not be discussed.

6. The Nurses' Representative Council shall be at liberty to make representations to the House-Committee upon any matter of Hospital management in which the nurses are con-

cerned. Also to the Educational Council of the Nursing School upon matters affecting Curriculum and Examinations.

7. The Nurses' Representative Council shall elect from among its members a Secretary, who shall keep a proper record of its proceedings in a Minute Book provided for the purpose.

8. The Minute Book shall be in the custody of the Secretary.

The first Ballot for the election of Nurses' Representatives upon the Representative Council will be held on Monday, November 2nd. For the purpose of this first Ballot the Senior Home Sister will act as Secretary.

The Probationers of each year will vote for their own Representatives on the Council, and will not have a vote in the election of Representatives of Nurses of other years.

The nomination of candidates for election as Representatives of each class of Nurse must be transmitted in writing to the Home Sister on or before Monday, October 25th.

Each nomination must be signed by not less than two Nurses. Nomination forms can be obtained from the Home Sister. A list of persons nominated will be posted four days before the Ballot.

By Order of The House-Committee,
HERBERT L. EASON,
Superintendent.

October 3rd, 1925.

Interesting Cases.

No. 1.—Meningitis with Glycosuria. (From Clinical).

ON Wednesday, August 29th, 1925, Mr. W. C. W., aged 60, was admitted into Addison in coma. On the previous Wednesday, according to his relatives, he lost the use of his legs, and had to discontinue work. He gradually recovered, however, till on Monday night (two days before admission) he was able to walk. His progress continued until the following (Tuesday) evening when he complained of splitting headache. He was put to bed and quickly became comatose, and was admitted at 2 a.m.

He had had right-sided otorrhœa for six months, with an exacerbation three weeks before.

On admission patient was restless and irritable, and passively resented interference. He was unable to speak or to understand what was said, but made purposeless unco-ordinated efforts to push away intruders, and to turn away from anyone who examined him. He had vomited before admission. He had Cheyne-Stokes breathing, and a full regular pulse that varied in the course of the day between 100 and 120. Temperature 101·2. No smell of acetone in breath. Systolic pressure 145, diastolic 75. White count showed 22,500 whites with excess of polymorphs. Patient's urine (withdrawn by catheter) was found to contain an excess of sugar. Rothera positive; $FeCl_3$ negative. Specific gravity 1020. The only neurological signs were a dropping of the right side of the mouth the evening before, reported by his daughter, and a divergent strabismus when patient was comatose. All jerks brisk and equal; plantars flexor, with complete withdrawal movement of leg. The right ear showed severe meatitis and discharge. Details of membrane not made out. Patient had bilateral papillœdema. At 5.30 a.m. blood sugar was 0·25 per cent.

On the principle that it is best to diagnose something that can be treated, it was assumed that patient was in a diabetic coma, and he was given 40 units of insulin, and rectally 5 per cent. glucose and 1 per cent. bicarbonate. It is clear, however, that this explanation failed to cover the papillœdema, and was not supported by the low blood sugar or by the small quantities of acetone bodies in the urine. His restive condition was also not characteristic of diabetic coma. Three other possibilities presented themselves, namely, cerebral hæmorrhage, cerebral tumour, or most probably ruptured subdural abscess following chronic middle ear disease.

Later in the morning a lumbar puncture was about to be done, but patient rapidly sank and died at 4.30 p.m.

At the post-mortem, performed by Professor Stokes, a generalised purulent meningitis was found, especially dense over the frontal lobes. Pus was found in the right mastoid cells. Careful examination showed it oozing out of the right internal auditory meatus. No evidence was found of venous thrombosis or of ruptured subdural abscess.

Our last hypothesis was, therefore, nearest to the truth. The case is of interest by reason of the way we were for a time misled over the sugar in the urine, and by reason of the incidence of a paraplegia, which passed off a week before admission. How are we to account for the loss of use of the legs the previous Wednesday? No satisfactory explanation is forthcoming. The one that follows is, perhaps, as good as any. Since the pus reached the meninges through the internal auditory meatus, it is not unreasonable to suppose that a neuritis of the 8th nerve preceded the infection of the meninges, which might have simulated labyrinthine symptoms. Giddiness and vertigo, expressing itself chiefly in inability to stand, might, perhaps have been interpreted by the patient's relatives as loss of the use of the legs. It is presumed that infection of the meninges coincided with the acute attack of headache the evening before admission. Under these circumstances, it seems unlikely that sufficient intra-cranial pressure could have been established to produce the papillœdema noted. Since the meningitis was very widespread, we may have been dealing here with a true optic neuritis, an inflammatory phenomenon, rather than with the contrasted pressure phenomenon of papillœdema. Unfortunately none of us were sufficiently adept in the use of the Ophthalmoscope to distinguish the two. C. P. B.

NOTE.—*The Editor will be pleased to receive from any firm accounts of cases that would be interesting to students or old Guy's men, for publication in the* GAZETTE.

Correspondence.

Guy's Hospital Biennial Dinner.

Friday, October 16th, 1925.

DEAR Mr. EDITOR,—I am sending you the list of those who have so far signified their intention to be present at the Dinner. Tickets are being sent to all those whose names appear in the accompanying list.

By far the greater number of men have already notified me near whom they would like to sit—and this has greatly facilitated the arrangements—but I would ask anyone who has not done so to return to me immediately the notice accompanying the ticket, as therein requested.

If this is done I hope to be able to arrange that each diner will find himself seated among his own particular group of friends. On the other hand, it will be impossible for me to carry this satisfactorily into effect in the case of those whose replies reach me later than the morning of Monday, October 12th.

Of course, if there are any Guy's men who have been unable so far to decide to come, and yet find at the last they can do so; or if there are any who, on looking over the accompanying list see names which induce them to come, I hope that they will apply to me *at once* for a seat, informing me in the letter near whom they would like to sit. I will then do the best I can for these late comers who, though late in applying, will be none the less welcome.

I am, Sir,

Yours sincerely,

ARTHUR W. ORMOND,

Hon .Sec.

9, Devonshire Place,
Upper Wimpole Street, W.1.
5th October, 1925.

List of Guy's Men who have signified their intention to attend the Dinner.

1854—1879.

1854†Dixon, John, and Guest.
1867 Golding-Bird, C. H.
Chapman, Charles W.
1869 Durham, Frederick.
Bird, T.
1875 Cock, W.
Symonds, Sir Charters, K.B.E., C.B., C.M.G.
1877 Bowen-Jones, L. M., and Son.
Knox-Shaw, C.
1878 Reynolds, Lewis W., and Guest.
1879 Howell, T. A. J.
Tyson, W. J.
Hale-White, Sir William, K.B.E.

1880—1889.

1880 Ashwell, H. G.

1882*Howell, J. B.
Sells, H. T.
Worthington, S.

1884*Kinsey-Taylor, A. E.
Tubby, Col. A. H. C.B. C.M.G.
Counsell, H. E.

1885 Heatherley, Francis.
Price, Alfred E.
Green, Albert.

1886*Collingwood-Andrews, E.
Drew, Henry W.
Beard, Frederick.
Alexander, Sir Sidney.
Holloway, S. F.

1887*Randall, P. N.

1888*Metcalfe, G. H.
Black, G.
Collington, F. A.

1889 Wynne-Rouw, R.

1890—1899.

1890 Norburn, A. E.
Williams, Robert.
Thorne, John.
Pilcher, Maj.-Gen., C.B., C.B.E., D.S.O.
Fawcett, John, and Guest.
Stevens, Thos. G.

1891 Samways, D. W.
Thomas, A.
Craig, Sir Maurice, C.B.E.
*Young, John
Jewell, J. W. F.
King-Brown, R.
Hopson, Montagu.

1892 Turner, F. M.
Floyd, S. G.
Young, Frederick C.
Bolus, H. B.
Daldy, A. M.
Birdwood, G. T.
May, P. M.

1893*Howard, J. A.
Keay, Colin.
Pendred, Vaughan.
Eyre, J.

1894 Carpmael, Cecil.
Gore-Reynolds, B., & Guest.
Allport, A.
Robinson, W. E.
Munro, H. A.

1895 Aston-Key, M., O.B.E.
Partridge, A. H
Steward F. J., & Guest.
Parfitt, J. B.

1896*Pike, W. H.
Fagge, C. H.
Milbank-Smith, H. J. M.
*Clowes, E.
*Marsh, H. R.
Spon, H. J.
Brice-Poole, T.
Rowlands, R. P., O.B.E.
Ormond, A. W., C.B.E.
Garland, J. O.
Reed, J. C. G.
Howe, A. F. A.
Butler, Arthur G.
Hinchliff, C. J.
Spriggs, Edmund I.
Knowles, C. Heygate.

1897 Way, Montagu.
Norwood-East, W.
Hodgson, C. R.
Smith, W. H. M.
Moore, Julius.
Moore, P. W.
Mayston, R. W.

1898 Barrow, Lt.-Col. H. C.M.G., D.S.O., O.B.E.
Henson, W. J.
Eason, H. L., C.B., C.M.G.
Peatson, J. C. S.
Ashby, E.
Jocleyn-Swan, R. H.
Campkin, P. S.

1899*Watson, Major D. P., D.S.O.
Simpson, Graham.
Taylor, J. G.
Penrose, A. W.
Lewin-Payne, J., O.B.E.
Bent, V. T. C.
Pearce, Frank J., and Guest.
Hope, W. B.

1900—1909.

1900 Goble, E. W.
Thomas, T. P.
Clarke, Edward.
Brydone, James M., O.B.E.
Camps, P. W. L.
Butler, J. A., and Guest.
Parrott, Hugh McD.
French, Herbert, C.B.E.

1901*Manser, F. B.
Bent, Sydney C. H.
Greenfield, L. G.
Thompson, A. Ralph.
Benett Major A. M.

1902 Pinching, C., O.B.E.
Shipway, F. E.
Odgers, N. B.

1903 Reinhold, C. H., Lt.-Col., M.C.
Wallace, F. H.
Spriggs, N. I.

1904 Hughes, E. C., O.B.E.
Mollison, W. M., C.B.E.
Hurst, A. F.
Beaumont, A. R.
Hughes, Frank P.
Ticehurst, G. A.
May, W. Norman.

1905*Cameron, H. C., & Guest
Hallowes-Miller, A.
Crofts, A. D.
McBride, John, and Guest.
Watney, H. A.
Payne, O. V.
Timpson, G. G.

1906 Burney, Major W. H. S.
Layton, T. B., D.S.O.
Berry, Arthur W.
Malleson, H. C.
Adams, E. H.
Davies-Colley, R., C.M.G., and Guest.
Blundell-Bankart, A. S.
Vandermin, H. F.
Ripman, C. H.
Stebbing, George, & Guest.
Bookless, J. S., & 3 Guests.
Trethowan, W. H.
Giesen, E.

1907*Carr, T. E. A.
Joste-Smith, H., M.C.
Carlill, Hildred.
Russell-Reynolds, J.
Watson, John N.
Jones, C. E. M.
Palmer, B. H. P.
Densham, A. T.
Aubrey, H. P.

1908 Lucey, H. C.
Denning, A. F. W.
Dobson, M. R., O.B.E.
Morton-Palmer, A.
Chapple, Harold.

1909*Druitt, D. C.
Attwater, H. L.
Mills, C. H.
Brook, Stanley.

1910—1919.

1910 Bromley, Lancelot.
Munden, M. M., Croix de Guerre.
Gardiner, H.
Steinbach, H.
Poulton, E. P.
Doubleday, F. N., & Guest.
Penny, Major E. A.
Mullally, G. T.
Kidd, W. S.
Hunt, W. H.
Yerbury, E. O.

1911*Lloyd, F. G.
Barber, H. W.
James, H. L.
Cook, F.
*Stuart-Carruthers, N.
Sandison, A.
Foster-Smith, G. F.
Williams, O. E.
Fox, W. E.
Messenger, H. L., M.C.
Hind, G. R.
Slesinger, E. G., O.B.E., Croix de Guerre avec Palme.

1912*Milton, L., M.C.
Izod-Bennett, T.
Hoby, Harry J.
Keith, T. S.
Zamora, A. M.
Jepson, A. C.
Genge-Andrews, G. E., O.B.E.
Cole, T. Philips.
George, W. Stanley.
Passey, R. D., M.C.

1913 Tanner, W. E.
Evans, H. W., M.C.
Lane-Roberts, C.
Leigh, H. V.
Morgan, O. G.
Wickenden, S.
Ryle, J. A., and Guest.
Scott, E. D.
Ogilvie, W. H., and Guest.
Reynell, W. R.
Barrowclough, J. R.
Eccles, G. D., M.C.

1914*Broster, L. R., O.B.E.
Pedley, Charles F.
Bocquet-Bull, F.
Pritchard, G. B.
Annesley, Capt. F. D., M.C., Croix de Guerre.
Boswell, P. R., M.C.
Lambrinudi, C.

1915 Curle, Reginald.
Lloyd, Vernon, M.C.
Symonds, C. P.
Easton, W. A.
Sells, Roland.
Gripper, Capt. G. D.
Attwater, G. L.

1916*Bates, Kenneth.
Wacher, H. Stewart.
Jones, J. Gaymer, M.C.

1917 Conybeare, J. J., M.C.
Woodruff, K. M.
Bulleid, Arthur.
Lond, Harold O.
Staley, R. C. W.

1918 James, John, & Guest.
Millett, H.
Spencer-Payne, A. L.

1919 Lansdown, R. B. P.
Griffin, J. H.
Siggs, Cecil George, & Guest.

1920—1925.

1920*Crisp, E. J.
McAlpin, K. F.
Smith, J. Stuart.
White, S. V.
Doherty, W. D.

1921*Noot, G.
Shaw, M. E.
Myatt, J. H. D.
Churchill, H. C.
Richardson, P. L.
Gratrix, F. D.
Douthwaite, A. H.
Rogers, A. T.

1922 Williams, P. H.
Laver, B. L.
Moore, B. R.
Allin, J. F., M.C.
Harris, H. A. H.
Trafford, P. G.

1923 Fawkes R. B., D.S.O., M.C.
Brown, W. A.
Smart, H. D.
Powell, A. T. W., M.C.

1924 Baylis, H. P.
Marsh, Frank.
Gray, John.
Fripp, A. T.
Bradley, W. H.
Pleasant, Stanley A.
Berman, S.
Sears, W. G.
Baird, M. M.

1925 Jago, M. E. M.
Garland, T. O.
Lewis, H. E.
Hankey, W. S.
Davidson, T. S.
Ford, W. G.
Burgess, —.
Nuthall, —.

†Date of Qualification. *Vice-Chairman

Also Rt. Hon. Lord Queenborough, Lt.-Col. R. W. Barclay, Sir Otto Beit, Sir Rowland Blades, M.P., Major Reginald Bonsor, Lt.-Col. Hugh C. Fortescue, Edward W. Giffard, Esq., The Rev. Canon J. B. Haldane, The Rev. A. G. Harris, R. M. Holland-Martin, Esq., O. Hoare, Esq., Hon. Evelyn Hubbard, Major the Hon. Richard Molyneux, Harry P. Shepherd, Esq., Sir Charles John Stewart, W. E. Stuart-Menteth, W. J. Walford, Esq., F. R. Whitbread, Esq., V. C. Vickers, Esq., and The Editor of the GUY'S HOSPITAL GAZETTE.

Reviews.

Slit Lamp Microscopy of the Living Eye. By Dr. F. Ed. Koby. Translated by Charles Goulden, O.B.E., F.R.C.S., and Clara Harris, M.B. Published by Messrs. J. & A. Churchill.

THIS subject, which is of such extreme interest to Ophthalmologists, and which is opening up so many new avenues of research, is admirably unfolded in this volume. Dr. Koby has rightly entered fully into the all-important question of technique, with explanations of the optical principles involved, as it is only by a clear grasp of these that observations can be accurately classed respectively as physiological or pathological.

The whole volume deals very carefully with the normal and variations of the normal appearances of the different surfaces and media of the eye, both in youth, middle and old age, and in this lies its value.

The illustrations are necessarily few in such a small space and this is a disadvantage when the pathological side is discussed, as accurate coloured pictures can alone convey the correct impression of the majority of conditions seen with the slit lamp.

Vogt's superb Atlas is almost indispensable in this connection as a reference book.

The translation is excellent and as nearly all the present literature on the subject is in German, the book will be of the greatest service to students of this new branch of Ophthalmology.

A fairly complete bibliography is appended.

A Family in the Making. By R. O. Hall. Published by The Student Christian Movement. *Price* 3*s.* 6*d.*

MR. HALL exhibits in this little book a divine discontent with the world after the war. That is to say that he does not share—who does nowadays?—in the comfortable illusions of a facile optimism, but at the same time is perfectly sure that there is no ground for pessimism if only we would have the patience and the pluck to dig a little deeper below the surface of things.

Mr. Galsworthy's unholy trinity, Science, Finance and the Press, do not exhaust the list of available forces in life, and we may yet be rescued from materialism by a recovery of the sense of purpose in all legitimate human pursuits and developments. There are good things in the book about doctors and parsons, and the chapter on "The ministries of everyday life," clearly indebted to the spirit of Mr. Studdert-Kennedy, is well worth reading. Mr. Hall gets to the root of the matter before he finishes what he has to say, and he knows "why God did not kill Adam and Eve."

The book is a live book by a live man and succeeds in combining evidence of original thinking in the writer with stimulus to the same healthy exercise in the reader.

The Chemical and Physiological Properties of the Internal Secretions. By E. C. Dodds, Ph.D., B.Sc., M.B., B.S., Professor of Biochemistry in the University of London, and F. Dickens, M.D., Ph.D., Assistant in Biochemistry, Biochemical Dept., Bland-Sutton Institute of Pathology, Middlesex Hospital. Pp. 214. Published by Messrs. Humphrey Milford, Oxford University Press. *Price* 8*s.* 6*d.*

FOR a book published in the series of Oxford Medical Publications this volume contains too much chemistry. Of a text of 200 pages much less than one-third is devoted to physiological properties. The chemistry consists, for the most part, of details of processes which have been used for the preparation of the various hormones. Some of these processes are of historical interest only, and can be of small value even to the few who study such matters, and who would in any case prefer to read them in the original.

What space is devoted to the physiology of the internal secretions is filled well. A very good account of the physiology of insulin is given, which includes much recent work. The two lobes of the pituitary gland are not so well described. It is surprising to find, on the one hand, six pages devoted to Brailsford Robertson's Tethelin, and on the other hand, only a passing reference to the anti-diuretic action of the posterior lobe extract, with no mention of the recent work of Fromberz, Mo-

litor and Pick, Verney and Starling. The physiology of the thyroid gland is condensed into one page.

The most interesting chapter in the book is that on the ovary. The authors describe Allen and Doisy's method of preparing from the liquor folliculi of pig ovaries an active hormone which will produce œstrus or premature puberty after subcutaneous injection into rats. In the introduction they say "Here we have a body (the hormone), the injection of a few milligrammes of which causes, within 48 hours, a solid column of cells (the prepubertal vagina of the rat) to become a tube, in addition to the other cellular changes occurring in œstrus." These facts Dickens and Dodds have confirmed by their own experiments, and in drawing attention to them they are performing a valuable service.

The book is concluded by a chapter on adrenaline, and a miscellaneous chapter in which an account is given of Dudley and Rosenheim's work on spermine, and of Collip's new parathyroid extract. The book has several points of distinction; a good account is given of the methods of biological assay in the case of each secretion, and there is a bibliography every item of which the authors claim has been consulted by them in the original.

Rebuilding Europe. By RUTH ROUSE. Published by The Student Christian Movement. *Price* 2*s.* 6*d.*

MISS ROUSE, to whose vision, courage and enterprise, the undertaking owed its inception and fulfilment, has given an arresting and even thrilling account of that chapter in the reconstruction of war-shattered civilisation which concerns the needs of the scattered students of Europe. From the headquarters at Geneva a continent-wide organisation of student relief has embraced some twenty countries in its operation.

The European Student Relief Movement has proved a veritable Alma Mater, having had to begin at the beginning and collect and distribute food and clothing, and organise employment before the students of the war-ridden Nations of the Continent could be in a position even to contemplate the resumption of interrupted study. As the author said the situation was that "half the student world was in ruins" and the Movement set itself to awake the other half to action. Of the success it met this book is an adequate record and should certainly be read by all who wish to gain an insight into modern International Sociology. Its programme was certainly the best and most hopeful kind of salvage work and is surely destined to reap the fruit of better international understanding some day. There are some excellent illustrations and the price is moderate indeed for the information.

Theory and Practice of Nursing. By M. A. GULLAN, Sister Tutor, St. Thomas's Hospital. Second Edition. *Price*

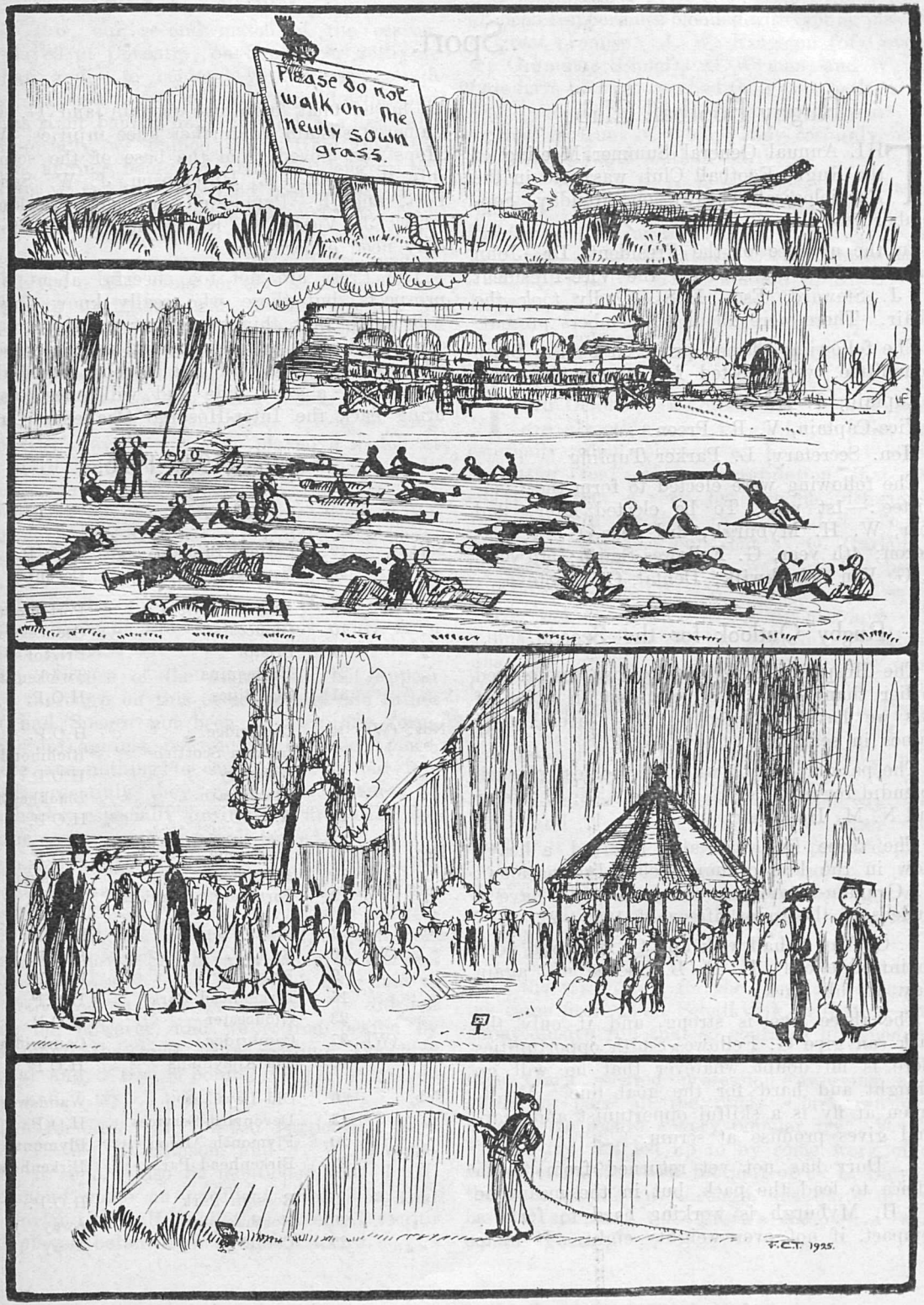
THIS book should prove a useful addition to every nurse's bookshelf. The subject matter is concise, to the point, and is presented in a very readable form. It is unfortunate that the book does not cover the entire ground of nursing required by the syllabus drawn up by the General Nursing Council. The blank sheets between chapters should prove of real use for notes—should encourage the thoughtful nurse to make her own observations from personal experience in the wards.

This book has been much read during the last few years and well merits a second edition.

Notes on Medical Case Taking and the Examination of Patients. By G. S. HAYNES, M.D., M.R.C.P. Pp. viii. + 57. Published by Messrs. Hoffers of Cambridge. *Price* 3*s. net.*

THIS book is intended for the guidance of the student entering on the period of his clinical work, and, if it be suggested that to the Guy's student the notes supplied by The Medical School Office are of more value, this must be understood to cast no reflection on the intention or execution of the author. But unless this book be supplemented by Hutchinson and Rainy's "Clinical Methods" (and such is the intention of the author) it would in reality be of little value. There is perhaps too much information for the first weeks of ward work, certainly too little for the remaining months. Especially deficient is the section on the examination of the genito-urinary system where no test is given for the presence of blood or acetone bodies in the urine, while the clinical examination of the blood is nowhere mentioned.

The production of the book is excellent, and it was a happy idea to interleave it with blank pages.


Please do not walk on the newly sown grass.
F.C.T. 1925.

Sport.

Rugby Football Club.

THE Annual General Summer Meeting of the Rugby Football Club was held in the Physiological Theatre on Monday, September 7th.

In the absence of the President, Dr. John Fawcett, M.D., F.R.C.P., the Vice-President F. J. Steward, Esq., M.S., kindly took the Chair. There were about 40 members present.

The following officers, proposed by the Blues Committee, were elected for season 1925—26:

Captain, J. Durr.

Vice-Captain, V. R. Preen.

Hon. Secretary, L. Parker Tupling.

The following were elected to form the Committee:—1st year, To be elected later; 2nd year, W. H. Myburgh; 3rd year, G. G. Cameron; 4th year, G. Fellowes-Smith; 5th year, J. G. Van Schalkwijk; Dental, C. L. Steyn.

Rugby Outlook for the Season.

The Hospital Rugby Season has commenced earlier than usual this year, but in spite of this we have managed to play several trial games in search of "new blood."

The pack no doubt will feel the loss of such splendid forwards as B. Schofield, E. E. Neser and N. M. Holloway.

The three line has also received a heavy blow in the loss of our Welsh International, H. Graham-Davies; however, we still have a nucleus of the great fifteen of 1921—22.

J. G. Van Schalkwijk and C. L. Steyn need no introduction! P. D. B. Spence will again play at full back.

The three line is strong, and if only the pack can give G. Fellowes-Smith opportunities there is no doubt whatever that he will go straight and hard for the goal line. V. R. Preen at fly is a skilful opportunist and Garland gives promise at scrum.

J. Durr has not yet returned from South Africa to lead the pack, but in the meantime W. H. Myburgh is working hard to form a compact, if not over weighty eight. It is to be hoped that both our captain and G. G. Cameron sustain no further knee injuries. W. Hops has moved from the base of the scrum into the pack. E. Hutchinson, J. W. Schabort, and F. Popplewell are hard workers, whilst J. Visser, C. Kurtz and W. Radford only need experience.

The Press are not too cheerful about our prospects, but those who really know Guy's will agree that things are not so gloomy as one is given to understand, and as the season advances our team will in all probability shake down into a good side and will once more bring back the Inter-Hospital Challenge Cup.

Fixtures, 1925-1926.

1st. XV.

Sept.		19	Catford Bridge	H. O. P.
„		26	Coventry	Coventry
Oct.		3	United Services	Portsmouth
„		10	Gloucester	Gloucester
„		17	Bristol	Bristol
„		24	Harlequins	Twickenham
„		31	Old Blues	H.O.P.
Nov.	(W)	4	Cambridge	H.O.P.
„		7	London Scottish	Richmond
„		14	Coventry	H.O.P.
„		21	Blackheath	Blackheath
„		28	R. N. C.	H.O.P.
Dec.		5	Richmond	H.O.P.
„		12	Aberavon	Aberavon
„		19	Portsmouth Services	H.O.P.
Jan.		2	O. M. T's	H.O.P.
„	(W)	6	R. A. F.	H.O.P.
„		9	Bristol	H.O.P.
„		16	Birkenhead Park	H.O.P.
„		23	Gloucester	H.O.P.
„	(W)	27	Cambridge	Cambridge
„		30	Old Alleynians	H.O.P.
Feb.		6	Old Leysians	Wandsworth
„		13	Devonport Services	H.O.P.
„		20	Plymouth Albion	Plymouth
„		27	Birkenhead Park	Birkenhead
March		6	Rosslyn Park	H.O.P.
„		20	Northampton	Away
„		27	Cardiff	Away

Guy's v. Coventry.

IN this, our second match of the season, played at Coventry, on September 26th, we had again to contend with a very rough day. Almost a gale of wind was blowing and it was right behind us all through the first half. Territorially we gained much from this, the touch finding being of abnormal length, but sad to relate, having gained position we made but poor use of it, and a dropped goal from P. D. B. Spence was our only score during the first half. It was a great afternoon for Spence; he played a fine game for Guy's, and we were fortunate in having him in the position he fills so well, as doubtless the Coventry XV. had a great deal of the play, more especially in the second half when the Hospital forwards tired and the Coventry men, being in better fettle, stood the strain better. Not so long ago Guy's would not have played a match at all until early in October, and these early games must be weighed with the fact that several players are, and must be so early in the season, short of training. It is only their keenness that carries them through. It was a pity that G. G. Cameron could not turn out, and another noted absentee was J. Durr who, we hope, will be fit and strong on his return from South Africa.

The defence of the centres did not appear very thorough on this occasion, and one rather felt had Spence not been in such fine form, the score against us would have been more. There was nothing to complain of in our forwards, certainly they gave many chances to the backs, especially during the first half, but neither wing man was well served.

Morton gained Coventry's first try, and the second one was secured by J. A. M. Wale, the Royal Air Force Player. A very fine conversion followed this last try. As the game was closing, Fellowes-Smith came along in his best style and crossed for a try which only had to be converted to gain us victory. It did not come off, however, and we retired beaten by one point, the final score reading, Coventry 1 goal and 1 try, 8 points; Guy's, 1 dropped goal and 1 try, 7 points.

The forwards who played particularly well were E. W. Hutchinson, and J. W. Popplewell; it should also be mentioned that J. H. Richmond made an excellent impression. T. O. Garland at half is another excellent recruit and played better than against Catford.

Coventry are a good side. They are a team of men of experience blended with young players of great promise. J. W. Kingston (of Coventry Grammar School), A. Wyman, and W. E. Lale have not yet reached their twentieth birthday; one hopes they have many years of football in front of them. They certainly have commenced hard football early.

Guy's Team.—P. D. B. Spence; G. Fellowes-Smith, C. L. Steyn, J. G. Van Schalkwijk, G. Clark; T. O. Garland, V. R. Preen; W. H. Myburgh, J. W. Schabort, E. W. Hutchinson, J. Popplewell, J. H. Richmond, C. Kurtz, W. Hops, N. L. Eckhoff.

Guy's v. United Services.

THIS match took place on Saturday, the 3rd October, at Portsmouth. The Sailors are always a very tough lot to take on, especially when playing at home, and it is a matter for great congratulation that we emerged from a very hard game victorious. It took us all our time, though and it was not till nearly the very end that T. O. Garland's try came which definitely got us home by a margin of two points.

We took the field without Spence and still minus the services of the captain. Schabort was also unable to make the journey, N. L. Eckhoff filling the vacant position. The good understanding between Garland and Preen seems to improve with every game, and on Saturday they played exceedingly well, both individually and as a combination. It was also a good day for J. G. Van Schalkwijk, G. Clark and W. H. Myburgh. The latter was hard at it in every department of forward play including the hidden post of "hooker." Seldom does the man who gets the ball get the glory. He is unseen from the touch line, though sometimes heard.

V. R. Preen, T. O. Garland and G. Clark were the try getters for the Hospital. Clark's try came first. Van Schalkwijk, with that peculiar elusive run that so confuses his enemies (sometimes his friends), got away cleverly, and then Clark secured possession, swerving and gathering pace all the time. Clark ran excellently to secure a very popular try. V. R. Preen's try was led up to by some work of a very speedy nature on the part of C. L. Steyn; the pace of his cut through was quite up to his old standard and Preen's completion was equally good.

We were seven points to the good when the Services came along and by means of a couple of tries and 1 goal secured a lead of 1 point, and it was only as the game was drawing to a close that T. O. Garland's try was forthcoming, and with the conversion following we were eventually able to claim victory.

Both sides thus scored 3 tries—the Services converted on one occasion, ourselves twice, hence the final score reads—

Guy's, 2 goals 1 try, 13 points.

Services, 1 goal 2 tries, 11 points.

The final summing up should be "a jolly good game with nothing in it."

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, C. L. Steyn, J. G. Van Schalkwijk, G. Clark; T. O. Garland, V. R. Preen; W. H. Myburgh, E. Hutchinson, J. Popplewell, C. Kurtz, J. H. Richmond, W. Hops, N. L. Eckhoff, J. D. Viser.

Soccer.

Guy's v. Chelsea Polytechnic.

THE first match of the season was played on Saturday, October 3rd, at H.O.P.'s against Chelsea Polytechnic. The result was a victory of 11—0.

The team, as a whole, showed distinct signs of having but recently emerged from its summer slumbers, and with a little more energy all round the score could doubtless have been increased. Williams at centre forward and Couch at centre half were, however, in quite good form.

It it felt that the most crying need of the moment is the infusion of new blood, as some of the older players will not be available. We appeal, therefore, to all members, newcomers interested in Soccer, to make every effort to support the Club. A list will be found in the Colonnade on which they are asked to write their names. Two teams are being run. Both are in need of regular players as well as of reserves, the latter being of no less importance than the former.

There will be a general meeting of the Club on October 9th to which as many as can do so are invited to attend.

The following represented the Hospital on Saturday—Henderson, Hancock, Barman, Gray, Couch, Smallshaw, Kendrick, Evans, Williams, Walters, and Fulford.

Tennis.

Senior Inter-Hospital Cup Tie Final.

THE 1st VI. met our old Rugger opponents, St. Bart.'s, in the Final Round on Wednesday, July 15th, on courts very kindly lent by St. Thomas's Hospital.

In the Singles Guy's led by 4 matches to 2. In the Doubles Guy's collected the first 4 matches, which then made it impossible for Bart.'s to obtain a victory and play was discontinued.

Once more the Senior Challenge Cup, which was lent to King's last season, will return to its home in the College.

Singles:—

P. D. B. Spence beat Pearson, 6—2, 6—1.
H. Lewis-Phillips lost to Kingsley, 4—6, 9—11.
D. Lurie beat Buttery (Rugger Captain), 6—0, 6—3.
H. Trafford beat Sinclair, 6—1, 8—6.
E. E. Neser beat Gibson, 6—3, 6—4.
V. G. Boyle lost to McLeon, 6—3, 3—6, 6—3.

Guy's 4. Bart.'s 2.

Doubles :—

P. D. B. Spence and D. Lurie—
beat Pearson and Buttery, 6—3, 7—5.
beat Sinclair and McLeon, 6—4, 6—1.
H. Lewis-Phillips (Capt.) and E. E. Neser
beat Pearson and Buttery, 8—6, 7—5.
beat Sinclair and McLeon, 6—4, 7—5.
A. H. Musgrove and V. G. Boyle—
v. Sinclair and McLeon, 6—3, 1—6, unfinished.

Guy's 4. Bart.'s 0.

Final Result of Match—8—2 to Guy's.

The 2nd VI., as already mentioned in an earlier edition, were knocked out in the 1st round of the Junior Inter-Hospital Cup Tie by the holders, King's College Hospital. St. Bart.'s eventually won this Cup.

Lowe-Washbourn Cup Singles Championship.

In the final round H. Lewis-Phillips, the tennis captain, defeated H. Trafford in two straight sets, 6—3, 6—3.

Sir W. Arbuthnot Lane has again very kindly given the winner a silver replica of the cup.

Hospital Information, etc.

Notices.

EXAMINING Board in England by the Royal College of Physicians of London and the Royal College of Surgeons of England.—The following are the dates on which the Examinations will commence for the year 1926.

First and Pre-Medical Examinations—

*Chemistry and Physics.—Tuesdays, December 29th (1925), March 23rd, July 20th, September 28th.

Biology.—Wednesdays, December 30th (1925), March 24th, July 21st, September 29th.

Second Examination—

Part I.—Anatomy and Physiology.—Thursdays, December 31st (1925), March 25th, July 1, September 30th.

Part II.—Materia Medica and Pharmacology.—Mondays, January 4th, March 29th, July 5th, October 4th.

Third or Final Examination—

Medicine (1st Paper).—Tuesdays, January 5th, April 6th, July 6th, October 5th.

Medicine (2nd Paper).—Wednesdays, January 6th, April 7th, July 7th, October 6th.

Midwifery.— Thursdays, January 7th, April 8th, July 8th, October 7th.

Surgery.—Fridays, January 8th, April 9th, July 9th, October 8th.

*The Examination in Practical Chemistry will commence on Fridays, January 1st, March 26th, July 23rd, and October 1st.

Candidates intending to present themselves for Examination are required to give notice in writing to the Secretary of the Examining Board in England, Examination Hall, 8-11, Queen Square, Bloomsbury, London, W.C.1, fourteen clear days before the day on which the Examination commences, transmitting at the same time the required Certificates.

All Candidates are required to produce certificates of age when entering for the first time for any part of the Final Examination.

All Fees must be paid not less than three days prior to the day on which the Examination commences.

Synopses indicating the range of Subjects in the Examinations in Chemistry, Physics, Elementary Biology, Practical Pharmacy, Physiology, Materia Medica, and Pharmacology, Forensic Medicine, and Public Health may be obtained together with the Regulations.

Notice to University Candidates.

Candidates are reminded that they should send with the Schedule of Certificates when applying for admission to the Final Examination, (1) a certificate from the Registrar or other official of the University showing that they have passed Examinations in the subjects of the earlier Examinations of the Board, (2) evidence of registration as a Medical Student or certificate of matriculation.

N.B.—Books of Questions set at the several Examinations of the Board for each year from 1887 to 1918 may be had on application to Messrs. Taylor and Francis, Printers, Red Lion Court, Fleet Street, London, E.C.4, price 6d. each, post-free 7d.; 1919 to 1925, price 9d., post-free 10d.

FREDERIC G. HALLETT,
Secretary.

The following have been appointed Student Demonstrators of Anatomy—

J. E. Morton. N. E. Pitt.

The following have been appointed Assistant Student Demonstrators of Anatomy—

H. N. W. Harley. R. A. Leader.

Specialities.

Certified Milk.

WE have pleasure in drawing our readers' attention to "Certified Milk," described by the Ministry of Health as the highest grade of milk that can be produced, and no milk can be sold as such unless the producer and distributor hold licences from the Ministry of Health permitting them to do so.

In order that it may be absolutely pure (1) the milk is not pasteurised or treated by heat at any stage; (2) every animal in the herd is carefully examined by a veterinary surgeon at stated intervals; (3) every animal is tested by the tuberculin tests at intervals of six months to ensure freedom from tuberculosis; (4) the milk is bottled on the farm where it is produced, and thus protected from contamination; and (5) no milk, before delivery to the consumer will contain—

(a) more than 30,000 bacteria per cubic centimetre;

(b) any bacillus coli in one-tenth of a cubic centimetre.

To produce and distribute "Certified Milk" costs more than other kinds, so it is sold at a higher price, but it is well worth the slight extra charge.

Correction.

In the article entitled "From an Essex Creek" in the last number of the GAZETTE the name of the Treasurer on the Inscription should, of course, be B. Harrison, and not R. Harrison.

The Editors humbly apologise both to Mr. Steward and to their readers for the numerous errors which occurred in printing the article "By Way of Introduction."

Change of Address.

K. G. Sharvill, 3, Portland Place, W.1.

Dr. E. P. Poulton, 25, Upper Wimpole Street, W.1. (Phone, Paddington 1772).

Publications Received.

St. George's Hospital Gazette, Oral Health, The Dental Record, The Prescriber, The Nursing Times, Journal of Canadian Medical Association, "Building the Builders," (Report of Student Christian Movement, 1925).

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

Published on alternate Saturdays. Price **9d.**

Annual Subscription, including "Directory of Guy's Men (Medical and Dental)," **12s. 6d.** post free, payable in advance.

Advertisement Rates on application to "The GAZETTE Manager," Counting House, Guy's Hospital, S.E.1. Telephone, Hop 1086.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Papers by Guy's Men.

J. J. Conybeare, M.D., M.R.C.P. The Treatment of Visceroptosis, *Lancet,* 1925, ii., 716.

G. B. Dowling, M.D. Case of Xanthoma Tuberosum Multiplex.—Proc. Roy. Soc. Med., 1925, xviii. Sec. —of Dermatology, 64.

H. W. Barber, M.B. (1) Case of Circumscribed Sclerodermia associated with "White-Spot" Disease. (2) Case of Lichen Nitudus,—Ibid., 68.

F. N. Doubleday, L.R.C.P. (Lond.), M.R.C.S. L.D.S.(Eng). A report on certain Drugs and Solutions used in Local Anæsthesia.—Ibid., Sec. of Odontology, 40.

Hildred Carlill, M.B., M.R.C.P. A Case of Luminal Poisoning.—*Lancet,* 1925, ii., 596.

W. W. Payne, M.B., B.S., and E. P. Poulton, M.D., F.R.C.P. A Clinical Study of Diabetic Coma. —*Lancet,* 1925, ii., 638.

W. E. Tanner, M.S., F.R.C.S. The Surgical Aspects of Tuberculous Mesenteric Glands.—*Clin. Jour.* September 23rd, 1925.

Births.

GODDARD.—On September 12th, 1925, at 47, Connaught Square, Hyde Park, W.2 (née Tovey), the wife of Theodore Goddard—a daughter.

JERWOOD.—On October 1st, 1925, at Catmos, Tadworth, to Joan (née Everitt), wife of Bernard Jerwood, M.D.—a daughter.

Marriages.

PERCIVAL—SAYNOR-THOMPSON. — On Thursday, September 17th, 1925, at St. Augustine's Church, Sheffield, by the Bishop of Sheffield (Dr. Burrows), assisted by the Bishop of Hereford (Dr. Waterfield) and the Rector of the Parish, Victor W. Percival, L.D.S.,Eng., to Blanche Gwendoline, only daughter of Mr. and Mrs. R. Saynor-Thompson, of Clarkegrove Road, Sheffield.

DAY—MASON.—On September 19th, 1925, at St. Mary's Church, Prittlewell, by Rev. T. Chamberlain, Frederick Walter Day, L.D.S.(Eng.), D.D.S. (Penn.), of East View, Thorpe Bay, elder son of Mr. and Mrs. W. G. Day, of Kensington, to Vivian Grace, elder daughter of Mr. and Mrs. G. A. Mason, of Crowhurst, Dowsett Avenue, Southend.

Death.

HUTCHINSON.—On August 10th, 1925, Frederick Ernest Hutchinson, M.R.C.S., L.R.C.P., aged 53, from heart failure.

EDS. { C. P. B. / S. V. S.

GUY'S HOSPITAL GAZETTE

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PASSIM

ON October 6th, Mr. Bellingham-Smith read a paper to the Physical Society on "Art in Relation to Medicine." The paper was copiously illustrated with lantern slides made especially for the occasion, so that any attempt at a report without reproducing all of these pictures, would be vain. It is with great regret, therefore, that we find it impossible to do more than comment upon the subject-matter so vividly presented to a very appreciative audience.

Actually the points shown by Mr. Bellingham-Smith bore no relation whatever to any medical subject, from which circumstance, in the estimation of most people present, the address gained both in charm and interest. Justification, however, was found for the title by some introductory remarks upon the relation of Art to Science. Quotation was made from Charles Darwin's celebrated reminiscence to the effect that his appreciation of imaginative literature and of music was destroyed by the unremitting activity of that non-emotional part of his nature which was concerned in the compilation of scientific works. In this contrast and mutual exclusiveness of the artistic and scientific faculties, and in the necessity of supplementing the second by the first, a reconciliation of title and subject matter was found.

Of the general truth of this antithesis there can be little doubt, though the subject seems to demand further analysis. In a passage occurring in the "Voyage of the Beagle," Darwin describes the exact circumstances under which the conception of the Mutability of Species first occurred to him. It seems to have germinated suddenly one afternoon, when he was sitting alone in a rocky valley in the Galapagos Islands, with all the unexpectedness and vividness of an artistic inspiration. Doubtless the impressions he had formed on his voyage of the anomalies of geographical distribution of species, and of the inconsistency of Palæontological records, had laid the foundations for this sudden intuition. Yet the fact remains that the essence of the conception which formed the basis of his immense scientific researches and revolutionary ideas, came to him thus abruptly out of a sphere of the imagination closely akin to that whence comes the inspiration of the artist. Had Darwin been a poet, he might have returned to the Beagle and struggled that night to express in appropriate rhythm the staggering realisation which had come to him in the valley that afternoon. As it was, however, being a scientist, his mode of expression was different. He was compelled to embark upon that immense task of critical examination, of collecting, sifting and compiling evidence which, as he puts it, turned his mind into a machine for extracting generalisations out of masses of unrelated and discrete facts. The contrast between the two scientific activities is marked. In the first, as it were out of the blue, in a moment of abstraction, the idea came to him from some unexplored realm of his imagination. In the second is required a vigorous suppression of imagination and a slavish attachment to actual data which, in strict accordance with scientific probability, have to be co-ordinated and synthetised to fit a clear cut theory. After the first initial inspiration, all imagination and emotion is superfluous, and indeed harmful, leading to overstatement, the mention of wild hypotheses, and in fact to all kinds of scientific irresponsibility.

The really creative scientist must possess both attributes—the flash of genius, or creative faculty, as well as the patience, meticulousness and industry, or analytical faculty which is necessary to invest his inspiration with that correspondence with objective fact necessary to overcome the mulish scepticism of his more wooden-minded colleagues, and the ignorant prejudices of the world in general. There are many men possessed of the first attribute and not the second. Thus the idea of organic evolution was conceived by several people before Darwin, but they lacked his patience and analytical power so that they sank into an oblivion from which their names were only rescued by attracting an ephemeral reflection of the glory that shone upon their greater successor. But the world holds more people possessing the second quality without the first—people who are content to spend their lives working out experiments conceived by superiors, the eventual significance of which they are happy to ignore. Much of the scientific pre-eminence of Germany is due to that country possessing subjects of this industrious and docile nature.

The process to which, as medical students, we have to subject our minds in the course of our six years training, has a good deal in common with the second or analytical process of Science. There seem to be two requirements. The first is the equipment of our minds with the necessary medical data. The second is the appropriate application of these data to the diagnosis of particular cases. The first process is nowadays a difficult and laborious one, in which there is little scope for the expression either of the creative faculty or of that specialised form of sensibility which distinguishes the artist. The second process is a little different. It might be contended that the physician who possesses what is known as diagnostic "flair" or intuition, and comes to his conclusions by a non-rational sort of mental short cut, of which he can give little account, exercises, in appraising each case a specialised form of sensibility and preception not far removed from that of the artist. It is for some such reason, presumably, that medicine is frequently called an "Art." In common with Pugilism and other forms of sport, it seems to enjoy the simultaneous designation of an Art and a Science.

But in hospital, the practice of Medicine as an art is the privilege of but a few. For the majority of the rest of us our training remains an exacting labour which, when examinations come into view becomes an acknowledged drudgery. Now and then the routine may be vivified by a spasm of interest in a certain patient or disease. But in most cases this fleeting inspiration must remain unexplored, owing to pressure of other work and to lack of the time necessary to master the complexities of technique which, like the fires encircling the sleeping Brünhilde, surround all subjects on which we contemplate other than statistical research. Wherefore all who attended Mr. Bellingham-Smith's lecture will be grateful to him for having transported us for three quarters of an hour to a sphere wherein our interests and imagination were stimulated to an activity which, in most of us to our loss, remains largely dormant and unexercised.

THE other day we met a Guy's man who remembers when there was a ward called Charity. He was much perplexed by an inscription in a certain lift in the Surgical Block, which reads "Astley—Cooper—Christopher—Lazarus—Lydia"; we could but condole with him.

Who can blame the Works Department? They but follow a notable precedent, if they would have us believe that there can be five wards where there are but four!

OUR congratulations to Mr. Frank Cook, who was recently appointed Surgeon to Out-Patients at the Chelsea Hospital for Women.

OUR heartiest congratulations to P. D. B. Spence, who by defeating E. Higgs, 8—6, 6—3, 7—5, in the final, played on Saturday last at Queen's Club, retained the Covered Courts' Championship of London.

Tennis enthusiasts will be interested in a notice which appears on page 551 of this issue.

WE congratulate the Fellowship of Medicine on achieving an official organ of its own.

We regard this publication not as yet another competitor in an already overstocked market of Medical Periodicals, but as a definite step towards the realisation of the ideals of Post-Graduate Studentship. We have every confidence, with the Editor of the Post-Gra-

duate Journal, that this work will do much to supply a long-felt want.

It is proposed that this journal shall publish selected lectures delivered at the instance of the Fellowship of Medicine. These lectures will be selected not by the more usual method according to academic brilliance, but rather by "essentially practical considerations"; in this way it is hoped more readily to encroach upon the leisure moments of the General Practitioner and Post-Graduate Student.

We have no hesitation in introducing this journal to all old Guy's men, conscious that we do not introduce a cuckoo into the nest, but rather a senior contemporary whom we shall appreciate better in the fulness of time when we too have become "Guy's men."

THE National Union of Students, working in conjunction with Messrs. W. & G. Foyle, Ltd., has inaugurated a scheme whereby University Students can obtain Text Books under exceptionally advantageous conditions.

New and Second-hand Books will be repurchased by Messrs. Foyle at two-thirds the price paid for them by the Student, any time within one year from the date of purchase by the Student, and for smaller sums after longer periods according to a fixed scale.

This makes it possible, therefore, to borrow a book for one year for one third of its purchase price.

Arrangements are being made whereby Order Forms will be available from the Wills Librarian. It is hoped that full advantage of this concession will be taken; for privileges unused, like privileges abused, are soon lost.

WE would direct our readers' attention to two letters which we publish in our correspondence columns.

The day rapidly approaches when the Residents will hold their Ball. We understand that very few tickets are left, and those who have not already obtained their tickets should hasten to do so, or they will be disappointed.

The other relates to the Liverpool District Reunion Dinner, and claims primarily the attention of Guy's men in the North Country.

Guy's Hospital Biennial Dinner.

THE Biennial Dinner was held at the Connaught Rooms, Great Queen Street, on Friday, October 16th, under the Presidency of Sir A. Fripp.

The function was a very great success. There were four hundred Guy's men of all times and ages there, and naturally among that number everybody was sure to find somebody of their own Hospital year with whom to exchange reminiscences and experiences.

Judging from the scene in the Reception Room before the dinner it seemed that everybody did do so. All around old friends greeted each other in their different ways. There were boisterous greetings, violent greetings, and there were the courteous greetings of the old days. It seemed that if anyone found himself alone for a moment he would look around for someone who looked as if he ought to belong to his year and he would hail him cordially by some name or other, sometimes an entirely fictitious name it seemed. However, such a pair generally found that they had something in common with each other so all was well. Some groups seemed to be having such an enjoyable time in the Reception Room that it appeared that they were extremely reluctant to move in to dinner.

Although the dinner is really of quite secondary importance on these occasions nobody can have been so enchanted with his old friends that he failed to notice that it was a dinner of the highest excellency.

After the toasts had been honoured the scenes of the Reception Room were repeated once more and quite a number of men were to be seen proudly introducing "their boy," sometimes a Guy's man of some years standing, and sometimes a man still doing his ward appointments to their contemporaries.

However, this pleasant occasion had to come to an end and the numbers gradually dwindled till the last group left.

The success of the evening was due in no small measure to the untiring energy of the Honorary Secretary, Mr. A. W. Ormond, and the general appreciation of his work was shown by the enthusiastic response to his toast, proposed by the President.

Hyperpiesia.

Clinical Lecture by Dr. J. A. RYLE.

GENTLEMEN,—When you embark upon practice you will find yourselves confronted by a number of problems which do not obtrude themselves during the period of your clinical training. The reasons for this are not far to seek. In the wards and out-patients we are for the most part concerned with acute illnesses or the later phases of chronic disease. In practice, on the other hand, the majority of your patients will appeal to you for lesser ailments or at a stage of chronic disease in which symptoms rather than signs must guide you in your decisions. The social circumstances of your practice may further determine the incidence of certain types of disease.

Among the problems which may perplex you will be those connected with the diagnosis, prognosis, and treatment of high blood-pressure. Now in the wards we see little but the terminal effects of high blood-pressure, such as cerebral hæmorrhage or a failing heart. In out-patients, too, it is rare to see early or uncomplicated cases. Furthermore, there is an impression abroad that high blood-pressure is actually more prevalent among the well-to-do and the brain workers than among the poorer working classes. In any case you can hardly be expected to learn from the material available in hospital many facts which you will require to know about the early manifestations and gradual progress of this disease. It is, therefore, my purpose in this lecture briefly to sketch for you the natural history, so far as we understand it at present, of the condition to which it has of late become customary to refer as Hyperpiesia.

Definitions.

We owe to the late Sir Clifford Allbutt, who devoted much time and scholarly labour to the study of arterial disease in general and of arterial hypertonus in particular, the terms hyperpiesis and hyperpiesia. By hyperpiesis we understand the fact of raised blood-pressure; we know that it may be transient or persistent, and that it may accompany a variety of conditions including arterial disease, chronic renal disease, lesions causing increased intracranial pressure, exophthalmic goitre, and so forth. By hyperpiesia we understand a peculiar and interesting malady in which raised blood-pressure is the most constant and outstanding feature. Clifford Allbutt described it as a malady in which, at or towards middle life, the blood-pressure rises excessively — a malady having a course of its own and deserving the name of a disease. To Clifford Allbutt we are also indebted for the clearing away of much of the confusion which previously existed between hyperpiesia and renal high blood-pressure on the one hand, and hyperpiesia and senile or "'decrescent" atheroma on the other. In order to prepare the way for our discussion I have tabulated here the broader clinical distinctions between these diseases in the later stages of their development. With these before us we shall be in a better position to review the subject in hand and to understand both the differential features and the features common to the three conditions.

Clinical Distinctions between Hyperpiesia and Chronic Interstitial Nephritis.

	Hyperpiesia.	C.I.N.
Age incidence	40—60	20—50
Physical type	Robust, healthy	Unhealthy, anæmic
Urine ...	Alb. nil or trace	Present, perhaps copious
Cardiac hypertrophy	Always present latterly	Present, but less evident
Blood urea ...	Not raised or very slightly	Greatly raised
Retinitis ...	Occasionally present	Frequent
Death from ...	Cerebral hæmorrhage "Cardiac defeat" Rarely uræmia	Uræmia

Clinical Distinctions between Hyperpiesia and Senile or "'Decrescent Atheroma."

	Hyperpiesia.	Senile or "Decrescent" Atheroma.
Age incidence	40—60	60—80
Artery ...	Thick, tough, but not at first tortuous	Thick, hard, tortuous
B.P.	Always raised	Not necessarily raised
Heart ...	Hypertrophied	Not necessarily hypertrophied
Death from ...	Cerebral hæmorrhage "Cardiac defeat"	Coronary atheroma with myocardial degeneration, or intercurrent Disease

The Causes of Hyperpiesia.

In reviewing what we know about the causes of hyperpiesia we immediately find ourselves confronted by the leading question—still imperfectly answered—is the high blood-pressure due to arterial disease or is the arterial disease due to the high blood-pressure? That the high pressure is not wholly due to the arterial disease is apparent from the fact that periods of great improvement may occur in the course of the malady, and also from the observation that the blood-pressure may be temporarily and greatly lowered by the administration of nitrites. In other words, even if arterial disease be present from the beginning—which is doubtful—we must also imagine the presence of some other factor which raises blood-pressure by stimulating hypertonus of the arterial musculature. It is commonly supposed that some circulating pressor substance is at work and disputes occur as to whether this pressor substance is in the nature of a toxin resulting from bacterial action within the body or whether it is a product of faulty metabolism, or otherwise evolved. Against the bacterial theory are the observations that most bacterial toxins have a depressor effect, and that sufferers from hyperpiesia are commonly robust and healthy-looking individuals with no discoverable sign of alimentary or other intoxication.

Various careful researches have shown that in cases of hyperpiesia examined after death there is present in the arteries, and more in some arteries than in others, a definite and constant histological change. To this change Dr. Geoffrey Evans has given the name diffuse hyperplastic sclerosis. His work would seem to suggest that diffuse hyperplastic sclerosis is the pathological synonym for the clinical condition hyperpiesia. He gives as the most reliable clinical evidence of hyperpiesia a systolic blood-pressure of (or above) 190 mm. of mercury; and as the most constant and prominent morbid anatomical finding cardiac hypertrophy, with a heart usually weighing over 15oz.

I would not have you imagine from this that hyperpiesia cannot be diagnosed in the presence of lower blood-pressures and in the absence of obvious cardiac hypertrophy. The disease should be diagnosed, if the patient presents himself soon enough, long before such a stage has been reached. We do not really know whether or not diffuse hyperplastic sclerosis is present in the early phases of the disease, but we do know that clinically the radial artery may at first show very little thickening or hardening.

Setting aside for the moment all theories in regard to the existence of a pressor substance, are there any other observations which suggest the existence of other causal or contributory factors in the development of hyperpiesia? The older physicians, having no bacteriologists or biochemists to instruct or bewilder them, devoted much time to the study of ætiology and diathesis. From such studies they often drew valuable conclusions and in few chronic diseases does study of this kind prove more profitable than in the case of hyperpiesia. Thus we find evidence of a predisposition to hyperpiesia both in family history and in physical type, and it has long been recognised that there is a very definite age-period at which symptoms appear and within which the course of the disease is laid. It is not at all rare to find that cerebral hæmorrhage or heart failure has been a common cause of death among the relatives or ancestors of a patient with high blood-pressure, and that these deaths have for the most part occurred between the ages of fifty and seventy. The majority of sufferers from hyperpiesia are of rather a robust and vigorous type, sometimes plethoric, sometimes obese, although I think we should also include a lean and nervous type. For the purposes of this lecture I looked through the notes of all my patients with high blood-pressure. From these I excluded all cases in which the high blood-pressure was due to other apparent causes such as nephritis or Graves' disease, all cases in which the patient presented himself on account of another disease, and all cases in which the high pressure might have been a transient phenomenon, or in which other symptoms or signs of hyperpiesia were lacking. The cases were equally distributed between the two sexes. A systolic blood-pressure of 180 or over was recorded in all except three cases in the series. On analysing the forty-five cases which remained I obtained the following figures in regard to age-incidence and physical type.

	Males.	Females.
Age—Lowest ...	47	Lowest ... 45
Highest ...	68	Highest ... 68
Average ...	58	Average ... 55

(Occasionally the symptoms develop at a much earlier age. Thus I have two cases at out-patients under forty and three cases under thirty years of age in the present series. These were omitted as unrepresentative for the purposes of this age table.)

Physical Type (both sexes together).	
Robust and healthy, or stout, or plethoric	62 per cent.
Lean and nervous	6 "
Average	20 "
Poor physique	12 "

Other factors besides the family history, age, and physical type which are commonly associated with hyperpiesia are the menopause in women, at which period high pressure symptoms may manifest themselves rather abruptly; hard work; worry; the stress of modern life; and good living. The part played by tobacco and alcohol is doubtful. The information available thus suggests that hyperpiesia should at present be regarded rather as a reaction to various morbid stimuli, and occurring in individuals with the hypersthenic diathesis or other predisposing attributes, than as a specific response to a single specific substance. If a pressor substance is necessary for the production of the arterial hypertonus perhaps we might suggest that this substance is activated through the sympathetic nervous system sometimes by over-work or worry, sometimes by the endocrine disturbances of the menopause or by some infection, or by a combination of these factors, but that such activation is seldom effective unless there is already present a predisposing physiological hypertonus of plain muscle. Hyposthenic individuals rarely develop hyperpiesia. In working through the notes of my ulcer cases some time ago I found that the blood-pressure showed a higher average among sufferers from duodenal ulcer than among those with gastric ulcer. In this connection you will remember that Dr. Hurst has pointed out that duodenal ulcer is more common in association with the hypersthenic diathesis.

The Clinical Features and Course of Hyperpiesia.

The symptoms which may be complained of by sufferers from hyperpiesia are very numerous, but for the most part they have reference to the head or the heart. In the early stages these symptoms may appear trivial and unconvincing and unless the blood-pressure be taken—and the sphygmomanometer must be the arbiter in every suspected case—the diagnosis may well be missed at a stage in which the prospects of treatment are most favourable. On the basis of my case-notes I have here tabulated the main symptoms exhibited amongst a group of patients who were for the most part sufficiently well to be up and about and leading moderately active or partially restricted lives. The few exceptions were cases of cerebral hæmorrhage or failing heart. The frequency of the symptoms in the series is given as an approximate percentage.

	Per cent.
Headaches, including pressure feelings, "bursting sensations," "tight band round head," noises in head	45
Cardiac Symptoms; Dyspnœa, precordial pain, consciousness of heart throbbing, palpitations	35
Nocturnal frequency	30
Dizziness	22
Nervousness. including anxiety, claustrophobia, fears	17
Fatigue, including loss of energy, inability to concentrate	17
Anginal pain	15
Cerebral vascular lesions	8
Ocular symptoms, including sudden blindness, failing vision, intra-ocular hæmorrhages ...	6
Epistaxis	6
Hæmoptysis	2

You will at once observe that many of these symptoms such as headache, dizziness, dyspnœa and nervousness are common to a host of other diseases and that many of them may also occur in patients without any appreciable evidence of organic disease at all. The list should, however, serve to remind you how important it is never to neglect subjective symptoms; and perhaps this is particularly the case about the middle period of life. The majority of these symptoms sufficiently explain themselves. The cardiac symptoms are a direct result of overworking of the left ventricle in its effort to combat the increased peripheral resistance. The nocturnal frequency is probably due to the high pressure in the renal arterioles; the headaches and dizziness to increased intracranial pressure; the anginal pain to increased stress within the aorta itself; the fatigue symptoms to combined cardiac and cerebral over-stimulation and overactivity; the epistaxis to a rupture of the delicate unprotected capillaries of the nasal mucosa. The nervousness, however, requires more judicial consideration for in some cases it is very difficult to say how far a nervous and anxious mind has predisposed to the hyperpiesia or how far the hyperpiesia has rendered the patient more liable to emotional unrest. I have small doubt personally that high blood-pressure can create in a previously calm and phlegmatic individual a state of mind in which he is easily perturbed or "rattled" and in which "mole-hills" take on the proportions of "mountains."

Physical examination commonly shows the sufferer from hyperpiesia to be a vigorous

type of man or woman, sometimes looking so healthy that the facial aspect misleads into an attitude of false security. A little later in the course of the disease the red cheeks may show an underlying tinge of purple, particularly in cold weather. In the hyperpiesia accompanying the menopause there is a liability to a diffuse and sustained flushing of the face and neck during moments of anxiety or fatigue, which is, I think, distinct from the ordinary "hot flushing" complained of at these times. The pulse is full and slow and not readily compressible—the *pulsus magnus, durus et tardus* of the old physicians. The quality of resistance imparted to the fingers by the artery is often that of toughness rather than hardness. The apex beat may be found to be in or perhaps just to the left of the nipple line. The aortic second sound is accentuated, sometimes sharp or sometimes ringing. The fundi may show wiry and rather tortuous vessels, perhaps even a small hæmorrhage or two. The urine is of low specific gravity and it may or may not show a trace of albumen.

It is very difficult to estimate the average duration of the disease for we do not in any individual case know when it began and the onset and progress are insidious and the course variable. Perhaps some idea of its natural stages may be given by providing you with a composite picture of a case:—A hard-worked business man discovers at fifty that his pulses go a little too quickly and that he has slight shortness of breath on exertion, that he has become liable to mild temporal headaches and that he tires more easily than he used to do. Odd symptoms of a minor kind may be traced back a year or two earlier. His blood-pressure is found to be 160 systolic, 110 diastolic. His urine shows a faint haze of albumen on boiling. He continues with his work, taking rather more care of himself than before, and a year or two later after a busy spell reports himself as rather more troubled with dyspnœa and mentions occasional bouts of epistaxis. During this time his blood-pressure is found to have risen to 200 systolic, 130 diastolic. He has become rather irritable; has to get up to pass water twice at night; and is annoyed by being unduly conscious of his carotid pulsations when he lays his head on the pillow. He is persuaded to retire from his work and to lead a quieter life. For a time he shows definite improvement, but ultimately after a longer or shorter interval is carried off by a cerebral hæmorrhage or sometimes less abruptly by what Clifford Allbutt so aptly describes as "cardiac defeat." The period which elapses between his first symptoms and his death may be anything between five and fifteen years or even longer; the symptoms experienced during that time may be slight or troublesome or only latterly crippling. Often the response of the hypertrophied heart is good throughout and, without any urgent or distressing symptoms ever having developed, death kindly closes the scene with a sudden apoplexy. But there is a rosier side to the picture, for some patients will support a systolic blood-pressure of 180 or 200 for years, leading contented and even active lives and dying of some other disease. Indeed high arterial pressure only becomes of serious moment when it begins to produce symptoms of distress in other departments of the body. This lack of definite correlation between the height of the recorded pressures and the severity of symptoms brings us necessarily to the discussion of what is a pathological high blood-pressure. Various methods are given for assessing the average blood-pressure at different ages. A simple plan is to take the systolic pressure as 120 at the age of 20 and to add ten millimetres of mercury for each decade, but some observers regard all blood-pressures above 150, whatever the age of the patient, as pathological. I should regard a systolic blood-pressure of 180 or upwards as pathological and signifying hyperpiesia at any age, but I am satisfied that it is quite possible in the presence of other symptoms, to diagnose hyperpiesia correctly with a blood-pressure of 160. I should be disinclined to diagnose hyperpiesia with a blood-pressure below 160, excepting in a young subject or with a clear association of other confirmatory signs and symptoms. With the more doubtful borderline figures repeated observations with the sphygmomanometer should always be made. The diastolic pressure was 100 or over in every case but one in my series, and 110 or over in four-fifths of the series.

Differential Diagnosis.

As I have already shown the differential diagnosis must be made particularly from chronic interstitial nephritis, and in the presence of retinal changes, much albumen, or

other suggestive features, the blood-urea should be estimated or other renal efficiency tests performed. High blood-pressure in young subjects should also be more carefully studied from the renal point of view than at the more usual age-period for the disease. The list of symptoms which I have given will remind you that care may be necessary to distinguish the earlier phases of hyperpiesia from anxiety states, from neurasthenia, and from simple over-work. A small hæmoptysis with fatigue symptoms may raise a suspicion of pulmonary tubercle. When the heart becomes enlarged and murmurs develop the differentiation from primary cardiac disease must also be made. In a patient of middle age with no previous history of rheumatic or syphilitic infection the development of cardiac symptoms or signs should be an immediate signal for blood-pressure observations. Indeed the majority of cases of cardiac disease developing at this period are secondary to hyperpiesia.

Prognosis.

Enough has already been said to show you that prognosis is difficult in the early or middle periods of the disease; but when serious vascular lesions or cardiac failure develop the outlook is obviously bad. With the slighter symptoms and objective signs of cardiac involvement or repeated small vascular lesions the forecast must needs be guarded. If, however, the case be seen in the early stages, when symptoms rather than signs give the clue to the diagnosis, and if a suitable way of life can be enjoined the outlook may be quite good, although longevity is not probable. A high blood-pressure discovered independently of other symptoms or signs of hyperpiesia in the course of a routine examination should be confirmed by further observations and does not necessarily demand a gloomy forecast. A very high diastolic pressure is relatively of more serious import than a high systolic pressure. A case occurring at the menopause may sometimes improve greatly when this phase of life is past. The patient's fitness in other ways, his mode of life and his family history, must, of course, always be taken into account, for prognosis like diagnosis should invariably be based upon a careful general survey. It need hardly be added that to the patient himself as good a prognosis as possible should be given, provided it does not so enhance his sense of security as to make him neglectful of his therapeutic rules.

Treatment.

It might at first seem hopeless to suggest remedial measures for so insidious and seemingly so relentless a disease, but in point of fact, a great deal of good may be done in little ways. Medicines play a small part only in the treatment. Nitrites should not be prescribed excepting for the treatment of such urgent symptoms as anginal pain. Iodides are said to reduce the pressure but are of uncertain value, and it should probably be our aim rather to check or delay the further rise of pressure than to produce a fall. A restful life, where possible, with avoidance of physical and still more of mental fatigue; avoidance of hurry, worry, and flurry; a dietary regime tending towards the vegetarian; good holidays; and reassurance and bromides for the anxious-minded patients, all play their part. The consumption of tobacco and alcohol should be kept within reasonable limits and the latter, if previously taken to excess, forbidden. Weight reduction in obese cases is valuable. Any obvious source of infection in the mouth or elsewhere should be dealt with. Never tell the patient his actual blood-pressure readings. If it is necessary to tell him that the pressure is high say that the figure is somewhat above the normal for his age, but do not indicate how much above the normal. Periodic venesections in the plethoric type of hyperpietic patient have been recommended, in the old days were much practised and would seem rational, but I have no experience of them. With hyperpiesia as with every other disease early diagnosis is the most important handmaid of treatment. I would therefore urge you to familiarise yourselves with subjective symptoms, however trivial, and always to try to find for them a reasonal interpretation. You should also practise your fingers, your stethoscopes and your ophthalmoscopes assiduously. Examine all radial arteries with care and register the systolic and diastolic blood-pressure with the sphygmomanometer in every case which it falls to you to investigate in the medical wards. The forefinger may readily learn to judge the presence of very high and very low pressures, but with figures between 110 and 170 mm. of mercury it is impossible to be accurate.

Finally, for its historical value and associations, it may interest you to look up an article entitled "Some of the Clinical Aspects of Chronic Bright's Disease," in the Guy's

Hospital Reports for 1879, by Dr. Mahomed, then Medical Registrar and later Assistant Physician to Guy's Hospital. Without the aid of the sphygmomanometer, which was not then invented, but with the aid of the sphygmograph, Dr. Mahomed was among the first to throw light upon the importance of blood-pressure observations in disease and to predict much that has since been established in regard to the interesting malady which we have been discussing.

Interesting Cases.

No. 2.—An Unusual Case of Peripheral Neuritis. (From Clinical).

H. S., aged 35, a nurseryman, was first seen at Dr. Symonds' out-patients, complaining of loss of power, tingling, numbness, and pins and needles in his arms and legs, and an ulcer on his left leg.

His previous history was uneventful, except that he had had an ulcer on each leg nine years ago. These healed completely after one month and patient had no other symptoms at all at this time.

Five months ago the patient developed an ulcer on his left leg. He knew of no cause for this, but said that he was always knocking himself when handling boxes, tools, etc., but usually did not take any notice of such small abrasions. He was wearing both pants and trousers at his work, so contamination of the wound by organisms from outside would not be easy. He treated it successively with lotio boracis, ung. acidi boraci, and finally Germolene, but this last was totally unsuitable, and the ulcer became of large size, about 4 inches by 2 inches. It had slowly and steadily healed for the last four months, but he had not been at work for seventeen weeks, on account of the ulcer.

Four weeks ago he noticed the gradual onset of numbness, tingling and "pins and needles" in the toes of his left foot. This had gradually got worse and when seen extended up to his left knee. Three weeks ago, the toes of the right leg, and the fingers of both hands became similarly affected. Between three and four weeks ago he also noticed weakness in the left leg, and later in the right leg and both hands and arms.

On admission to Addison under Dr. French, the patient was seen to have an ulcer in the centre of the anterior aspect of the left leg, measuring 1 inch by $\frac{1}{2}$ inch. It was very superficial, with clean edges, and a healthy granulating base.

On examining the central nervous system, the pupils reacted to light and to accommodation and the eyes to convergence. The other cranial nerves were all quite normal.

The tingling numbness and weakness of the extremities were accounted for by a peripheral neuritis. The arms showed considerable weakness of movements at all the joints and absence of all tendon reflexes. There was almost complete anæsthesia to cotton wool and pin prick at the fingers. This anæsthesia gradually diminished as one passed up the arms, until it was normal at the elbow joints. Above this there was definite hyperæsthesia as far as the shoulder joints.

In the legs, movements at the ankle joints were very feeble, the extensor muscles of the toes being almost completely paralysed, with consequent dropped feet. The muscles moving the knee-joints were strong, while those around the hip joints were little short of normal. The ankle jerks were absent, and knee jerks just obtained with reinforcement. The plantar reflexes were flexor. The muscles of the calves of the legs exhibited extreme tenderness. Just as in the arms, the toes were almost completely anæsthetic to cotton wool and pin prick, and this diminution in sensation slowly got less as it was traced to the knee-joints, where it became normal. Above this there was hyperæsthesia, especially in the thighs, this hyperæsthesia getting less and less marked, until normal sensation returned at the level of the costal margin. The only other abnormal nerve sign was an absence of vibration sense in all the bones of the body except the skull.

Thus there was a peripheral neuritis affecting both the arms and the legs. Although there was no muscular wasting, this was due to the recent acute onset not allowing sufficient time for this to occur.

Dr. Symonds suggested that possibly this was a case similar to those seen in Mesopo-

tamia during the war, when a diphtheroid was grown from such an ulcer. A swab was taken from the ulcer and a growth of K.L.B. obtained. The culture killed a guinea pig in 30 hours and produced a typical membrane at the site of injection. A swab taken from the throat showed no K.L.B., and the Wassermann reaction in the blood was negative. The urine was normal, and in the cardio-vascular system the only point of interest was the low blood-pressure, 95 mm. systolic and 61 mm. diastolic.

So evidently the cause of the peripheral neuritis was the toxin of diphtheria bacillus absorbed from the ulcer on the left leg. Being absorbed via the perineural lymphatics, this first produced a neuritis in the left leg, and then later in the right leg and both arms.

When the throat is the primary source of infection, the nerves supplying the palate are usually the first to be involved in post-diphtheritic palsy, but in this case the palate moved perfectly well and no alteration in the voice had occurred. It is especially interesting to to note that as far as we could gather, at no time has there been any membrane formation on the ulcer, nor has there been any abnormal temperature or pulse rate since being in hospital.

Treatment. — Immediately before admission the patient thought the power in his arms was improving and the tingling getting less. This improvement was maintained, and so anti-diphtheritic serum was not given, especially as the patient was anaphylactic, and the process had been going on so long. The ulcer was treated by dressings of hydrarg. perchlor. 1/4000 and after a week of this was only the size of a thumb-nail. The only other treatment given was that of the foot drop.

At the time of writing, 14 days after admission to hospital, the ulcer is the size of a sixpence, K.L.B. can no longer be cultivated from the ulcer, muscular power has improved, especially in the arms, and the hyperæsthesia is less marked subjectively, and extends only half way up each fore-arm and to well below each knee.

E. C. W.

Correspondence.

The Residents' Ball.

DEAR SIR,—I am writing on behalf of the Dance Committee to ask whether you will insert in the current issue of the GAZETTE a notice to the effect that there are still a number of tickets for the Residents' Ball, to be obtained on application to the President of the Residents or any of the Committee. Would you also intimate that it is hoped that as many present Guy's men as can manage it will come to the Dance so that it may be a success in every way.—Yours faithfully,

W. S. HUNT,
Hon. Sec. and Treas. Residents.

Guy's Hospital,
London, S.E.1.
20th October, 1925.

Liverpool and North Western Guy's Re-union Dinner.

DEAR MR. EDITOR,—I wonder if you can find space in the GAZETTE for this notice?

The Liverpool and North Western Guy's Re-union Dinner will be held at the North Western Hotel, Lime Street, Liverpool, on Wednesday, 4th November, at 7.15 p.m.

Price 12s. 6d. exclusive of Wine, to be paid at the Dinner. Music.

Will those wishing to be present please send their names to:—HORACE MATHER.

73, Rodney Street,
Liverpool.

Papers by Guy's Men.

Sir William Hale-White, K.B.E., M.D. The Centenary of the Discovery of Bright's Disease, port., *Lancet*, 1925, ii., 769.

A. Ernest Sawday, M.B., B.S. Partial Intestinal Obstruction in a Child due to Post-rectal Teratoma. —*Brit. Med. Jour.*, 1925, ii., 685.

W. E. Tanner, M.S., F.R.C.S. An Unusually Large Tumour of the Breast.—*British Jour., Surg.*, 1925 (Oct.), xiii., 393.

Frank Cook, F.R.C.S. Observations on the Neuro-Musculature of the Uterus.—Jour. of Obst. and Gyn. of Brit. Emp., 1925, xxxii., 487.

Reviews.

Surgery.

Some Encouragements in Cancer Surgery. By G. GREY TURNER, F.R.C.S. Published by Messrs. J. Wright & Sons, Bristol. *Price* 7*s*. 6*d*.

ONE has become so used to hearing the gloomy view of this subject that the title of the book is likely to attract attention from the first. Though quite small and easily readable, it is packed from cover to cover with interesting notes, and the illustrations are really excellent. Mr. Turner opens with a quotation from the Rubaiyat—"and when the Angel with his darker draught, etc.," and closes with the famous picture of Walter Raleigh as a boy listening, awestruck, to tales of the Spanish Main: these two pictures epitomise Mr. Turner's attitude to his subject.

As a small boy his interest was stimulated by the rapid recurrence of several lumps which he had—"rather crudely"—excised from a neighbour's pigeon; later, seeking only a measure of relief for a patient suffering from a clinically inoperable carcinoma of the cervix, he excised this too, and discovered several years later, much to his surprise, that the patient had made a complete recovery; the nature of this growth was confirmed by microscopical section. This unlooked for success has led him to attempt operative interference in many cases which appeared at first sight unsuitable for such treatment, and with a very fair measure of success. Although one feels that an optimistic attitude to such a subject as cancer can very easily be over-done, the optimism of this book is well supported by facts, and is certainly not over-done.

We spent a thoroughly enjoyable two hours over the illustrations and text. An excellent little book, and one to be read for pleasure in one's spare moments.

A Synopsis of Surgery. By ERNEST W. HEY GROVES, M.D., M.S., B.Sc., F.R.C.S.Eng. 7th Edition. Published by Messrs. J. Wright & Sons, Bristol. *Price* 17*s*. 6*d*.

MR. HEY GROVES' book is too well-known to need much comment here; it has passed through seven editions since it first made its appearance in 1908, and the present impression has had several line drawings and diagrams added, while there has been a thorough revision of the text. It is an exceedingly difficult task to construct a book which shall meet the requirements of the student whose aim is the passing of an examination, and at the same time prove of real assistance to those who are interested in the subject from a broader point of view, in so far as this is possible of attainment it is attained here. Altogether an excellent investment.

Pre-Clinical Sciences.

Manual of Pharmacology. By W. E. DIXON, M.D., F.R.S. 6th Edition. Pp. 478. Illustrations 26. Published by Messrs. Arnold & Co. *Price* 18*s*.

DR. W. E. DIXON'S "Manual of Pharmacology" is well known to medical students. In the Sixth Edition, which has just appeared, the author has increased slightly the length of the book, but the general form and arrangement has not been altered. The wealth of illustrations continues to be one of the outstanding features of the Text Book.

Most *Punch* readers do not read *Punch* but look at its pictures. Likewise most medical students are probably "visiles," and glean information more vividly and with less trouble from what they see than from what they read. This manual is a magnificent picture book, and displays countless properties of drugs in diagram and record so indubitably that no-one can fail to interpret and few can fail to remember them. But pity for the poor student is not the only advantage of copious illustration, for records are the direct language in which drugs disclose their behavour, and since elementary pharmacology is still largely a descriptive science, records are the essential facts which deserve attention. The other chief group of facts, namely the action of drugs on human beings and during a longer time, does not lend itself to such treatment, and is included in the concise and orderly text. Its retention is promoted by human and prospective professional interest.

A frequent criticism of text-books which accounts in part for the less pleasant associations of such literature, is lack of perspective—the crowding of description without a robust control and expression of their relative importance. Here, however, the author has emphasised classification of his somewhat heterogeneous material wherever feasible. Occasion-

ally indeed hypotheses are presented which are admirable mnemonics for facts included in examination curricula but might have to be stated more cautiously if discussed in relation to more detailed information. The general arrangement and distribution of space is admirable. The rather short treatment of tissue extracts is a possible exception, for the development of an informed opinion as to their value is becoming progressively more urgent with the growth of vested interests depending upon enthusiastic advocacy of derivatives of most of those organs of the body which cannot be sold as butchers meat.

The subject matter of this edition has been brought up to date as far as possible in so varied and varying a field, and it will pilot its many readers pleasantly and safely past examiners to intelligent therapeutic practice.

An Explanation of Hydrogen Ion Concentration. By HENRY ELLIS. Published by Messrs. H. K. Lewis. *Price* 1*s*.

TO the average clinician the mere mention of pH conjures up in his mind something of a very academic nature, but in reality when once the rather unusual notation employed has been grasped the idea of pH can readily be appreciated. Towards this end Dr. Ellis has made a very good effort for he has explained pH lucidly and with as little technicalities as is possible. One is glad to see he has given some discussion on the very important subject of buffers, but it is noted with regret that the protein buffers occupy very little space therein for the major part of buffer action in the blood is due to protein.

As for the method itself, the capillator method is a simple one, much simpler than the existing ones. No doubt the pH of the skin or urine could be done "by the bedside," one wonders whether that of the blood could be managed without the aid of a centrifuge.

Altogether this is a very useful little pamphlet and all clinicians would be advised to read it.

General.

The Father of Modern Anatomy in Monumental Record.

NEARLY a year ago we announced in these pages the forthcoming publication of a large and important volume on André Vesale, the "Founder of Modern Anatomy." This work is now issued, by Messrs. Bale & Danielsson (30*s*. net), in the series of Research Studies in Medical History of the Wellcome Medical Museum. It is not necessary, neither have we the space, to tell again the somewhat romantic story of its inception. That, indeed, should be read in the pages of the book itself and the Forewords prefixed. Says Dr. Paul Heger, President of the University of Brussels and the chief mover in the scheme: "La guerre a empêché la réalisation de notre beau projet. Mais—" here it is, in a somewhat different form, entitled "The Iconography of Andreas Vesalius, with Notes Critical, Literary, and Bibliographical, by M. H. Spielmann, F.S.A." "In this work," writes Sir Arthur Keith, "Mr. Spielmann renders everyone who values the history of Medicine his debtor. Belgium has the privilage of claiming Vesalius as her son. I am proud to think that it is our country which now pays this deserved tribute to his memory." "In no country will this volume be more welcome than in the United States," says Dr. Harvey Cushing of his own land. "Vesalius's life shows that medical science then, as now, knew no bounds, and its historical figures are nowhere more appreciated and honoured than by those who endeavour to emulate them in a part of the world unmapped and unknown in the days when the *Fabrica* was written." Universal appreciation of both subject and author is further endorsed by Dr. Tricot-Roger, who presides over the International Society of the History of Medicine. And Mr. Spielmann himself, reasonably conscious that he has placed on the archives of literature, science and art a volume of first rate importance, is well entitled to add: "This Iconography of Vesalius is a great satisfaction."

Very satisfied with it every student will be when he turns to the subject which Vesale made pre-eminently his own. The earliest pictorial representation of an anatomy lesson or dissecting scene appears in a French translation of "Bartholomaeus Anglicus," 1482. An English version of this appeared thirteen years later, printed by Wynkyn de Warde. To these may be added a Venetian treatise dating 1493. In each case the professor appears with open book, reading his observations to the class, while surgeon, or barber surgeon applies his operating skill. With Vesale a new era opens, and the difference of the scene and all that it stands for must be viewed in Mr. Spielmann's

illuminating page. Many of the reproduced pictures (100 in all) show Vesale in the act of demonstrating his own discourse; and the title page of his volume, the surpriseful *Fabrica*, repeated here in several forms, is as extraordinary from the medical view point as it is excellent from the artistic. One very fine plate shows the master anatomist arguing his great discovery as to the correct position of the heart, a matter of hazy conjecture heretofore. In another representation, one of several at the Wellcome Museum, Vesale appears dissecting a body in secret; while a third, no less dramatic in treatment, portrays him as an army surgeon on the battlefield with the advance guard of Charles V. The greater bulk, which we have not space to notify, are in Hospital, Museum, and Gallery Collections, and private ownership; in London, Glasgow, Oxford, U.S.A. and the Continent. They make, with Mr. Spielmann's profoundly interesting and informing commentary, a publication which is unique. It is dedicated to Albert, King of the Belgians and H.M. George V. has graciously accepted a copy. Such a volume ought to find place of honour in every library of the medical world, and that of every national collection of fine art within Western Civilization.

On Writing Theses for M.B. and M.D. Degrees. By Sir HUMPHERY ROLLESTON. Second edition, revised. *Price* 1*s. net.*

THE writing of a thesis is an activity which the average student, struggling to acquire knowledge and courage sufficient to face the examiners in the Conjoint, has not seriously contemplated for himself. Yet it is a labour which, with the flux of time, the more ambitious of us will have to undertake. And the perusal of the above pamphlet by the Reviewer has convinced him that the student will be well repaid who bethinks himself of this task early in his medical training.

This pamphlet, which is commendably brief, contains twenty-eight pages of apt and valuable information on such subjects as: How to find a subject for a Thesis; the title and subject of the thesis; what a thesis should be; how to work up the subject; arrangement and composition of the thesis; and the handling of references. The book can be read in a quarter of an hour, the substance having appeared in the "St. George's Gazette" in 1911, and will provide information which, if read sufficiently early in his education, may suggest to the student a method of collating his reading and practical work which will enable him to consolidate the elusive entity which we call "personal experience," and to build it up into a coherent and well-founded structure.

There are many ways in which a surgical ward clerk could less profitably spend a shilling than in buying this pamphlet, and a quarter of an hour than in reading it.

Royal Dental Hospital of London Annual Report for 1924. Published by Messrs. John Bale, Sons, & Danielson, Ltd. *Price* 7*s.* 6*d. net.*

THE Annual Report of the Royal Dental Hospital, received by us this month, opens with the fundamental facts of dead teeth, and the methods employed in treatment, by Mr. J. G. Turner, followed by some cases of hæmorrhage, by Mr. W. H. Dolamore, in which the use of protogulin and sutures are shown to be of value. Acute general stomatitis is treated by Mr. E. Faulknor Ackery, who shows that acute general stomatitis may be the symptom of some general disease such as lymphatic leukæmia, scurvy and diabetes. The diagnosis and surgical treatment of cysts and tumours of the jaws is written by Mr. H. Stobie, and illustrated by X-ray photographs.

Mr. D. P. Gabel believes that tin casts resist the contraction of cooling vulcanite more completely than either Spence or ordinary plaster, and reports on the technical difficulties in the production of such hollow tin casts for undercut upper jaws. Post normal occlusion by Mr. A. T. Pitts is an interesting chapter of the Report. He deals with the clinical appearance, ætiology, and treatment, illustrating his subject with photographs of plaster casts and drawings.

The clinical aspect of X-rays in dental practice is dealt with by Mr. Edmund Rose, who explains how to read X-ray photographs to their best advantage.

Interesting cases on the treatment of infected roots with bacillus bulgaris are given by Mr. D. M. Edmonds. He shows clearly, by actual cases, the futility of rendering the root canal sterile, when dealing with deep infection of the dentine and bone surrounding the apex. The Report is concluded by Mr. A. T. Pitts, who describes three tumours of the jaw, excellently illustrated by X-ray photos. As usual, the articles are largely the result of investigations of cases admitted to the Royal Dental Hospital.

Sport.

Rugby Football Club.

Guy's v. Gloucester.

IT is not very often the Hospital go to the Kingholm ground at Gloucester and come away victorious. On Saturday, October 11th, we came very near making a draw, but that everlasting penalty, put the margin against us. There is generally a penalty that puts us down at Kingholm ground. It's not the fault of those in charge of the game, it's rather what would appear to be a different interpretation of the rules of the game.

As far as the actual play went the Hospital men are to be heartily congratulated. They held the Gloucester team, consisting of seasoned and experienced players surprisingly well. We can congratulate Garland on his tussle with Milliner, the scrum half. Garland gave as good as he got, it was no fault of our half back that Milliner gained two tries, worming through in a way reminiscent of Bekker. One of these scores was converted by J. Millington, and the same player also kicked the penalty goal. V. R. Preen gained both our tries, and Hutchinson successfully kicked a goal from one of them.

Behind the scrum, we had the hands and pace, but there is scarcely the force and vigour in the pack yet. In addition to Garland, Preen and Clarke had a good afternoon. In front Myburgh seems at his best. One looks forward to seeing the men in London soon, then the Hospital will more readily recognise that they have a XV. which deserves the wholehearted support of all Guy's men. Preen is doing his utmost in Durr's absence, and with Van Schalkwijk's help, to mould a team worthy of Guy's and whatever happens we must not forget that the season of 1925—26 opened a little unfortunately. The Captain away, G. Cameron busy with exams. and then six matches out of town to say nothing of the fact that P. B. D. Spence cannot yet play regularly. The team have done wonderfully well considering their difficulties and they will do much better as the season gets older.

Result.—Gloucester 11 points, Guy's 8 points.

Guy's Team.—P. B. D. Spence, G. Clark, J. G. Van Schalkwijk, C. L. Steyn, G. Fellowes-Smith, T. O. Garland, V. R. Preen, W. H. Myburgh, J. Popplewell, E. W. Hutchinson, J. W. Schabort, W. Hops, J. D. Visser, J. H. Richmond, C. Kurtz.

Soccer.

Guy's "A" v. City and Guilds College "A"

PLAYED on Saturday, October 17th, at East Lane, North Wembley. Unfortunately the City and Guilds were represented by only nine men. Despite this great handicap they played keenly and doggedly and were by no means disgraced by their defeat. City and Guilds won the toss and decided to take advantage of a slight incline and strong breeze. Within ten minutes Calder opened the scoring for Guy's and five more were added in rapid succession, the following scoring, Calder 1, Cantor 2, Cathie 2.

After the interval Calder, Cantor and Allot added 1 goal each to Guy's score. The latter netted the 9th—and last—a few minutes before the final whistle.

Result.—Guy's 9, City and Guilds 0.

Guy's Team.—Henderson; Bradley, Robinson; Siggers, Ginn, Daplyn; Gain, Allot, Cantor, Calder, Cathie.

Guy's "A"

October 3rd, v. Chelsea Polytechnic, 7—0, home.

October 14th, v. King's College Reserves, 0—6, away.

Golfing Society.

THE return match against the Hastings and St. Leonards Medico-Dental Golfing Society, was played on the 18th October on the Hastings course. The result was a win for the Hospital by $7\frac{1}{2}$ matches to $3\frac{1}{2}$.

Singles.					
Glover	$\frac{1}{2}$	v.	Kelt...	$\frac{1}{2}$
Cann	0	v.	Lee	1
Bown	1	v.	Lawrie	0
Vernon	1	v.	Bowen	0
Evans	1	v.	Davie	0
Schofield, F. W. ...	1	v.	Banks	0
Schofield, J. B. ...	1	v.	Reed	0
Foursomes.				
Glover & Cann ...	1	v.	Lee & Lawrie ...	0
Bown & Evans ...	0	v.	Kelt & Baird ...	1
Vernon	1	v.	Banks & Bowman	0
Schofield Bros. ...	0	v.	Davie	1
	$7\frac{1}{2}$			$3\frac{1}{2}$

September Monthly Medal—

Played at West Kent Chislehurst—

Ian E. Buxton, 92—14=78 net.

The Competition for the Society's Annual Prize was held on October 14th. There was a large entry and 18 competitors took out cards.

The Prize was divided between—

Ewart J. Buxton, 97—20=77; and

C. D. Malone, 92—15=77.

Next best J. A. Vernon, 90—12=78.

Hockey.

The second match of the season was played on October 10th, at Elmer's End against Egham.

The game was rather one-sided and thus it was not a good test for the team. The result, 11—1, was quite satisfactory in spite of this fact.

The scorers were Archer 5, Pidgeon 3, Catchpole 2, and Lyne 1.

Guy's Team.—R. Catchpole; M. F. Awdry, J. G. Kingsbury; C. N. Howitt (Capt.), J. E. Willet, F. E. Camps; A. H. Curtis, G. R. Pidgeon, C. Archer, L. Catchpole, H. O. Lyne.

The 1st XI. met the City of London Mental Hospital at Dartford, on October 17th, and won a rather scrappy game by 9 goals to 2.

In this game the team played together very well and in spite of the bad condition of the ground, controlled the ball well.

Scorers were Curtis 1, Archer 4, Malone 3, and Lyne 1.

Guy's Team.—R. Catchpole; M. F. Awdry, J. G. Kingsbury; C. N. Howitt (Capt.), J. E. Willet, F. E. Camps; A. H. Curtis, C. Archer, C. D. Malone, H. O. Lyne, R. G. Swiss.

Hospital Information, etc.

Events of Interest for Fortnight ending November 7th.

Saturday, October 31st.—Entries close for M.D. and M.S. Lond. Exams.

Last day of application for Entry Forms for First M.B. Lond. Exam.

Guy's v. Old Blues, at H.O.P.

Tuesday, November 3rd.—Meeting of the Physical Society at 8 p.m. Mr. Blacker will read a paper entitled "The Unconscious: Its future and its relevance to Medicine."

Wednesday, November 4th.—Guy's v. Cambridge University, at H.O.P.

Saturday, November 7th.—Entries close for First M.B. Lond. Exam.

Notice.

Bicentenary Appeal.

MAGDALEN PARK LAWN TENNIS CLUB.

Magdalen Road, Wandsworth, S.W.18.

ON Sunday, November 1st, Mr. E. T. Lamb, is bringing down a team, as under, to play the above Club, commencing at 11.30 a.m.

Messrs. P. D. B. Spence, J. D. P. Wheatley, D. M. Greig, E. Higgs, A. D. Vickers and E. T. Lamb.

Commencing about 2 o'clock, Mr. Lamb's team have kindly consented to give a series of exhibition matches.

A Silver Collection during the day in aid of Guy's Hospital Bi-Centenary Appeal Fund will be made.

It is therefore hoped that all interested in Tennis will support the good cause, so that a numerous attendance may be assured and the collection made one worthy of the occasion.

Admission Free.

C. NOLAN HYEM,
Vice-Captain, M.P.L.T.C.

Railway Stations (Southern Rly.).—Wandsworth Common, Clapham Junction, Earlsfield.

Bus Numbers.—49 and 67 to Surrey Tavern, Trinity Road. 77 to Earlsfield Road.

Guy's Hospital Medical School.

Beaney Scholarship in Materia Medica.

THE Beaney Scholarship in Materia Medica (including under that term Pharmacy, Pharmacology and Therapeutics) is now vacant.

The Scholarship, which is open to candidates who have received part, at least, of their medical education at Guy's Hospital, is of the annual value of £50 and is tenable for three years.

Further particulars may be obtained from the Dean, to whom applications must be addressed, at the Medical School Office, not later than Saturday, December 19th, 1925.

Guy's Hospital Club's Union.

Proposed Alteration to Rules 7 and 12.

Rule 7.—Delete the words "an auditor or auditors" and insert "a Finance Sub-Committee to examine."

Rule 12.—Delete "or be repaid to the Treasurer of the Union" and insert "the Constituent Institution concerned, and shall be deducted from the total of its budget for the ensuing season."

When these amendments have been carried out the rules will read as follows:—

Rule 7.—The Council shall appoint professional auditors of their accounts. The Council may also appoint a Finance Sub-Committee to examine the accounts of the Constituent Institutions.

Rule 12.—Should the expenses of any Constituent Institution be less than the sum authorised by the Council, the balance shall remain in the hands of the Constituent Institution concerned, and shall be deducted from the total of the budget for the ensuing year. Should the expenses exceed the sum authorised, the Committee of the Constituent Institution shall be responsible for the deficit.

R. L. DUSCHENE, *Hon. Sec.*

Pass List.

Royal College of Surgeons.

September, 1925.

Part I.

Mechanical Dentistry.

J. D. Bowling.
E. J. Dalling.
E. M. Douglas.
J. R. Prior.
P. R. Walter.
F. W. Watts.
C. H. Banks.
T. J. Barnes.
T. M. Calhaem.
A. H. Herbert.
L. E. James.
L. L. Lester.
H. O. Lyne.
W. H. Shrigley.
L. R. Rowlands.
P. S. Turner.
G. N. S. Weller.

Part II.

Dental Metallurgy.

J. D. Bowling.
E. Britstone.
E. J. Dalling.
E. M. Douglas.
J. R. Prior.
P. R. Walter.
C. A. E. Tomes.
D. A. Thomas.
F. W. Watts.
R. A. Bagg.
G. W. Beales.
G. H. Billison.
D. S. Clogg.
F. N. Corfe.
R. G. Daplyn.
R. Everett.
W. F. H. Frost.
G. E. Hansen.
H. S. Gare.
O. M. H. Jones.
E. W. Hutchinson.
C. E. Kurtz.
C. S. Laurens.
J. F.Lockwood.
G. H. Mason.
C. J. O'Donoghue.
V. R. Preen.
J. C. Read.
P. R. Shepherd.
S. Sharp.
I. S. Rutter.

Part III. (a)

Anatomy and Physiology.

C. M. Ross.
C. H. Woodham.
P. W. Binsted.
W. A. Wilson.
F. Allott.
L. E. Balding.
C. H. Bandy.
S. G. Caston.
R. L. Cautley.
H. E. S. Collingwood.
M. L. Cooper.
A. H. Curtis.
J. G. Douglas.
J. E. Forrest.
G. G. Grainger.
W. M. Grave Morris.
V. L. L. Hall.
A. H. Herbert.
F. L. Hassell.
J. W. H. Jones.
L. L. Lester.
S. D. Marcus.
W. H. G. North.
S. C. Post.
R. F. Prichard.
D. E. L. Robertson.
C. L. Stevens.
C. N. Talmadge.
P. S. Turner.
J. G. Van Schalkwijk.

Part III. (b).

Dental Anatomy Physiology.

F. H. Channon.
M. Berman.
I. E. Brown.
S. I. Cohen.
G. Fellowes-Smith.
A. W. Francis.
C. Hofman.
G. N. R. Jones.
R. F. Keet.
L. J. Martin.
L. G. W. Papenfus.
C. E. Pedley.
J. J. Sanders.
F. W. Sander.
R. G. Swiss.
H. E. C. Terry.

Appointment.

Frank Cook, F.R.C.S., Surgeon to Out-Patients, Chelsea Hospital for Women.

Change of Address.

J. A. Simons, c/o Sudan Government Medical Service, Khartoum, Sudan, Upper Egypt.

C. Adamson Fido, L.D.S., "Hambly," 408, Streatham High Road, S.W.16. 'Phone, Streatham 319.

F. P. Fouché, F.R.C.S., 69 & 70, Chudleigh's Buildings, Eloff Street, Johannesburg.

E. C. Hughes, F.R.C.S., 17, Wimpole Street, W.1. Phone No. unchanged (Langham 2029).

Squadron Leader J. Kyle, R.A.F., 32, Marine Road, S.W.17.

Major G. Covell, M.S., Central Research Institute, Kasauli.

A. H. Dodd, "Falmer," 112, Lowther Rd., Bournmouth.

C. A. Wakefield, L.D.S., "Shere," Raymond Road, Wimbledon.

H. A. H. Harris, 2, Queen's Gardens, Windsor, Berks.

Publications Received.

Indian Medical Record, St. Bart.'s Hospital Journal, The Medical Journal of South Africa, King's College Hospital Gazette, The Isis, The Nursing Times, The B.M.J., The Royal Dental Hospital Magazine, Long Island Medical Journal, Sphinx, Presidential Address and Papers read at the 14th Annual Conference of the British Commercial Gas Association, The Antiseptic, The Medical Review, University College Hospital Magazine.

EDS. { C. P. B. / S. V. S.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *November 7th, 1925.* *Number 974*

PASSIM

THE special departments of even the large London Hospitals are sometimes prone to become exclusive in their ideas, methods and teaching for the evident reason that they are necessarily more or less isolated. This tendency is a regrettable one, and it is solely due to the efforts on the part of certain members of the staff of these departments to acquaint themselves with the activities of other departments and hospitals that this exclusiveness is not more obvious.

It was to attempt to remedy this difficulty that the Visiting Association of the Throat and Ear Surgeons of Great Britain was founded.

After holding three extremely successful meetings in the Provinces the Association decided to hold the fourth in London, and elected to visit Guy's, where, our readers will recall, the Laryngoscope was invented and first used by Benjamin Babington.

On the first morning typical routine operations by the Guy's Throat and Ear Surgeons were demonstrated from 9.0 a.m. until luncheon. In the afternoon work by the General Surgeons on cases transferred to the general wards was witnessed. Here our visitors were particularly fortunate in seeing performed the final stage of Lillienthal's extra-pleural resection of the œsophagus for malignant disease. After which other cases of interest to the Oto-Rhino-Laryngologist were shown.

On Saturday morning the use of Diathermy and deep X-rays for Malignant Disease were demonstrated, and finally some interesting cases from the Dermatological Department were shown.

In this way it was possible to show our visitors something of the correlated workings of our various departments. It is hoped that our visitors left appreciating better any points about which doubts may previously have existed.

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IN 1895 Dr. T. Landon presented a donation of £5 to the Hospital for the purpose of providing Tea on Christmas Day to those children between the ages of 7 and 11 in the Borough who had attended Out-Patients in the course of the year or who had otherwise been connected with the Hospital. Thirty years have now elapsed since this day and the Landon Tea is now one of the most important annual events of the Hospital.

It is attended by some 700 children and costs about £90. For the last month or so the more long-sighted of the Borough children have been making the most of their sore throats, ear-aches, abrasions and other minor maladies in the hopes of earning, in the course of a well-timed visit to the Hospital, an invitation to the Landon Tea.

The entertainment is of a munificent order. It begins at 2 o'clock in the afternoon when, to the exuberant strains of Murray Pilcer Orchestra, the children enter the Out-Patient Hall, at each end of which two heavily-laden and gaudily decorated Christmas Trees greet their eyes. Entertainment is provided by the Hospital Niggers who sing choruses, and by two Father Christmasses who benevolently materialize themselves in our precincts for the afternoon. Tea is then provided in abundance, and before departing each child receives a present of a Toy.

It would be difficult for anyone wishing to spend a little money on giving poor children a happy Christmas to find a way that will provide a better return of happiness and enjoyment than will subscription of the Landon Tea Fund.

The assistance of all readers of the GAZETTE is urgently solicited again this year as in previous years. In addition to donations of money, for which, with the increase in scope of the tea, there is urgent need, Sister Out-Patients will be pleased to receive gifts in the way of toys, fruit, biscuits, chocolates, sweets, paper hats, crackers, and decorations for the Christmas Trees. Past experience has taught us that it is more difficult to provide satisfactory toys for little girls than for little boys. For the former, dolls are especially in demand. Since the Hospital can only afford to spend a shilling on each toy, and since it is difficult to buy a high class doll for a shilling, gifts of dolls will be especially welcome.

All persons connected with the Hospital, students included, are invited and will be given free teas. Sister Out-Patients will also be happy to receive assistance in the preparation of the tea and of the trees the day before from any student who can spare the time.

The Daily Sketch are kind enough to pay the expenses of sending several bus loads of Borough children to whatever children's pantomime is running at Christmas. Surplus funds from the Tea will be devoted to giving these children a meal either before or after the performance.

Most grown-up people who happen not to be crusted and misanthropic bachelors will feel that there is something deficient about a Christmas from which children are missing. The sight of happy children enjoying themselves is for most adults the essence of Christmas. And those of us who have not got children of our own, or who are separated from them by unavoidable circumstances, will find, in the acute enjoyment, in the enthusiastic delight of the Borough children at the Landon Tea as fitting a realisation of the true spirit of Christmas—a spirit of rejoicing and goodwill as they are likely to find anywhere in London. So all are invited to attend and to help to the best of their ability by sending direct to Sister Out-Patients whatever subscription they can afford.

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WE understand that all old Guy's men take an interest in architectural improvement to the Hospital. We are confident, therefore, that they will be pleased to hear that the Post-mortem Room has been completed, and is an immense improvement on its predecessor whose site it occupies. Its floor measures 36×24ft. Its height we have not measured. Its walls are built entirely of white tiles like those of our operating theatres. The room will eventually contain six porcelain tables, and the demonstrator will move from one to the other to do separate post-mortems. Each table has its own lighting arrangements and drain running below gratings under the floor, and there is ample accommodation for students.

Since the tables are not touching it is possible for students to stand right round them so that many more people can get a near view of the proceedings than formerly. In addition there are three stands, one in front of each pair of tables, which accommodate some 24 additional onlookers. But the chief feature of the new room is the roof which consists entirely of glass, so that the new Post-Mortem Room competes with the Eye Theatre for being the best-lit room in hospital.

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IT is with great regret that we announce the imminent retirement of Mr. S. H. Croucher,

Clerk to the Dean, at the expiration of 37 years' service to the Hospital. His capacity to combine a loyal, devoted, and highly efficient service to Guy's with multitudinous other public duties outside; the consideration which he has invariably shown to students in his dealings with them; and the keen interest he has always taken in Guy's men after they have ceased to be students have been perhaps the most appreciated of his many qualities.

We are confident that all Guy's men will join us in regretting his loss and in wishing him well.

Mr. MOLLISON would be obliged if the person who removed a C minor tuning fork from Out-Patients would return the same at the earliest moment.

ELSEWHERE in this number we reproduce, with certain modifications, an article written by Mr. R. L. Waterfield, a member of this Hospital, for the *Morning Post*, to which paper we are indebted for permission to republish. We feel that the lucidity of his exposition of an extraordinarily difficult and yet intensely interesting subject, to which he has devoted much attention, justifies us in presenting this article to our readers in spite of its having nothing whatever to do with medicine.

OLD Guy's Men will regret to hear of the premature death of one of their younger members, Eric Clark Hinde, on Tuesday, the 20th October, at the early age of 30.

E. C. Hinde entered the school in October, 1912; in September, 1913, he gained the Junior Science Scholarship, and two years later carried off all the principal academic prizes of the school.

He then joined the Royal Army Medical Corps, in which he served from July, 1915, till January, 1916, as a dresser attached to the Belgian Army. He qualified in October, 1917, and later held House Appointments in the Hospital.

We extend our most sincere sympathy to his relatives in their bereavement, and hope to be able to publish a more complete obituary at a later date.

Events of Interest for Fortnight ending November 21st.

Mon., Nov. 9th.—Final M.B., B.S. (Lond.) Examination.
Tuesday, 10th.—General Meeting of Students' Clubs, Physiological Theatre, 4.30 p.m.
Wednesday, 11th.—Guy's Hospital Fencing Club v. H.A.C., Pavy Gym.
Thursday, 12th.—Joint Meeting of Physical Societies of St. Thomas's and Guy's Hospitals, at St. Thomas's, at 8 p.m.
Friday, 13th.—Guy's Hospital Fencing Club v. L.R.B., Pavy Gym.
Saturday, 14th.—Guy's Hospital v. Coventry, H.O.P.
Monday, 16th.—Entries close for Primary F.R.C.S. (Eng.) Exam.
Thursday, 19th.—Final F.R.C.S. (Eng.) Ex.
Saturday, 21st.—Guy's Hospital v. Blackheath at Rectory Field.

Change of Address.

H. L. Peregrine, M.B., B.S., Surg. Lieut.-Commander, R.N., Royal Naval College, Greenwich, S.E.10.
Dr. H. J. Spon, 6, Via Cavour, Ospedaletti, Ligure, Italy (Until May, 1926).

Papers by Guy's Men.

Hildred Carlill, M.D., M.R.C.P., and Another. Traumatic Lesion of the Cauda Equina: Laminectomy. Recovery.—*Lancet*, 1925, ii., p. 917.
G. B. Dowling, M.D., M.R.C.P. Syphilitic Nephritis.—*B.M.J.*, 1925, ii., p. 551.

Publications Received.

The Isis, The Journal of Clinical Research, The Chilian Review, British Medical Journal, The Nursing Times, The Architectural Association Journal, University of Durham College of Medicine Gazette, The Cambridge Gownsman and Undergraduate, Charing Cross Hospital Gazette, St. Mary's Hospital Gazette, The Middlesex Hospital Journal, The London Hospital Gazette, Journal of the Royal Naval Medical Service, The Hospital Gazette, Sphinx, The Medical Journal of South Africa.

A Survey of Upper Limb Fractures.

Clinical Lecture by Mr. E. G. SLESINGER.

GENTLEMEN,—It appeared to me that it might be of use to you if we were to consider to-day certain general principles underlying the treatment of upper limb fractures and then to see in what manner they should be applied to the various upper limb fractures as they occur in practice, rather than to discuss in detail any one particular type of fracture.

First of all, I would like to impress on you the importance of co-operation in the treatment of these cases between the surgeon and the masseuse, since massage constitutes such an essential part of our treatment, and it will well repay you to visit the massage department whenever you can to study the methods employed there.

Our object in treating any case of fracture is, firstly, to restore the parts as nearly as possible to their normal alignment, secondly to keep them in that position until union has occurred, and, thirdly, and perhaps most important of all, to restore the function of the limb.

The first of these is what is meant by the reduction, or in popular language, the "setting" of a fracture. You endeavour, by manipulation, controlled if necessary by X-rays, to restore the bones to their normal relationships and to bring the fractured ends accurately into apposition.

The ease with which this can be done varies with the fracture, but it is quite essential that it should be done, as there can be no doubt that the only really certain way of ensuring a perfect result functionally is to begin by securing perfect anatomical reposition of the fracture. If for one reason or another this cannot be accomplished by manipulation an open operation must be performed, cutting down on the fracture and levering the bones into their proper position.

When anatomical reposition has been secured it must be maintained until union takes place, and that is the object of a splint. A good deal of nonsense is often talked about displacement in fractures. With a few very special exceptions the force that causes the fracture is the force that causes the displacement. Displacement when once reduced does not tend to recur except by the weight of the distal part of the limb. I do not believe that when a bone has been accurately reduced, the pull of the muscles tends to cause redisplacement, because every muscle has an opponent acting in the opposite direction. It becomes clear, therefore, that the main object of a splint is to resist the action of the weight of the distal part of the limb in causing redisplacement, and that if such weight is not acting or can be counteracted in some other way, there is no need for a splint at all.

The next point to consider is the position in which we should keep the joints of the limb while union is taking place. Now the muscles of the upper limb can be divided into two groups: those which when they contract have to do so against the action of gravity, and those which are acting in the direction of gravity, that is to say, into antigravity and gravity aided groups; the antigravity muscles being the elevators of the shoulder, the flexors of the elbow, the supinators and the dorsiflexors of the wrist, and their opponents being the gravity aided muscles. On common sense grounds it follows that the gravity aided groups will have the easier task when recovering from an injury to the limb, since their action will always be helped by the weight of the limb, and therefore in endeavouring to restore function to the limb it is the antigravity muscles that most need our help.

If a muscle is kept stretched for any length of time it becomes weakened, and conversely if it is kept short it recovers quickly, so that the obvious indication is to put the injured limb in such a position that the injured antigravity muscles are at their shortest. It is therefore our practice to put a fractured limb into what we term the antigravity position, not necessarily the whole limb, but that part of it which is injured, and so we put the shoulder in abduction, the elbow in flexion, the forearm in supination and the wrist in dorsiflexion. So that you see the splinting of any given fracture is a simple proceeding, all that is needed is to put the limb into its antigravity position and to see that the weight

of the distal part is not allowed to cause any redisplacement of the bone ends.

The splint should be kept on so long, and only so long as there is danger of redisplacement occurring, and this will vary according to the site of the fracture. The longest time we ever keep on a splint is three weeks, as in the humerus or in fractures of both forearm bones, and the shortest is 24 hours, as in many cases of Colles' fracture.

Massage should be begun just as soon as it is possible to expose the part with safety, as the sooner effusions of blood are got rid of the less likelihood is there of troublesome adhesions. Active movements, confined within the limits of pain can be commenced at the same time, but passive movement, except of the gentlest, must be reserved until union has taken place. We are in the habit of using the whirlpool bath before massage is given, and find it of great value. It is a whirling, aerated bath of hot water, and produces a greater degree of hyperæmia in a short time than any other means at our disposal. It seems to loosen up the tissues in a remarkable way and makes the massage session which follows it doubly efficacious.

Bearing in mind the general principles which we have just enumerated, I propose to describe briefly the types of upper limb fracture that we encounter and our methods of dealing with them.

Fracture of the clavicle is of two types, the rarer fracture of the outer end due to a direct blow on the shoulder, and the much commoner indirect violence fracture of the middle of the bone.

In the first variety the shoulder tends to drop, and therefore must be supported during healing, and for this type Sayre's method of raising the shoulder by a sling of strapping passing from the opposite shoulder under the elbow of the injured side is effective.

The second type of fracture is far more interesting. According to the text books it is said to be caused as follows: "a fall on the outstretched hand leads to force being transmitted up the arm to the shoulder and along the clavicle, which being unable to withstand the force breaks at its weakest part, namely, the junction of its two curves." This I believe to be wrong in every particular. What appears to me to happen is that the patient falls on his hand outstretched in front of him. As the result of this the shoulder is forced backwards, swinging back in a circle the radius of which is the clavicle and the centre the sterno-clavicular joint. In this backward swing the clavicle impinges on the first rib, and is snapped across it as a stick is snapped across the knee. The position of the break varies somewhat but is usually in the anterior concavity. The treatment of these cases is to put the bone back into the position it occupied at the moment of fracture, that is to say, to draw the shoulder forcibly back. This we do by means of a loop of lint over each shoulder, lashed together behind the back. Fractured clavicle represents 16 per cent. of all upper limb fractures, and 80 per cent. of the cases are under 20 years old. Braces should be kept on for two weeks, and the arm can with advantage be rested for a further week in a sling. Massage is not necessary because there are no muscles acting in the axis of the bone whose movements are likely to be impaired.

Fractures of the Humerus.—A good many of these cases call for operative treatment owing to the impossibility of reducing them by manipulation, or in the case of the lower end because the fracture line runs into the joint and sufficiently perfect position cannot be obtained without operation. Again in fractures of the shaft the risk of the musculo-spiral nerve becoming involved in callus with consequent wrist drop, makes operation the safest procedure in many of these cases.

Fractures of the upper end of the humerus are either fractures of the surgical neck, fractures of the great tuberosity or separations of the upper epiphysis.

In fracture of the surgical neck impaction often takes place, and if it does it is best left alone. In unimpacted cases it is usually best to try to secure impaction under an anæsthetic, as otherwise it is impossible to control the short upper fragment. As to the position in which the limb must be put, the ideal would be the full antigravity position of elevation and abduction. As this is, however, irksome, we use a compromise, putting the arm in Todd's splint, by which it is held abducted to a right angle. We employ massage and active movement from the first, the arm being rested on the splint between sessions for the first two weeks, and afterwards being kept in a sling. Passive movement is begun earlier in these than in any other fracture, because of the liability to adhesions in the shoulder. In our cases the average time under treatment is

6—8 weeks. In my opinion the circumflex nerve is injured in these cases far more frequently than is usually believed, and a great deal of blame which is put on the shoulders of the masseuse for failing to obtain abduction should really be given to the circumflex nerve.

If adhesions develop, the joint must be put through its full range of movement under an anæsthetic, and owing to neglect of this many of these patients ultimately fall into the hands of the bone setters.

Fracture of great tuberosity often occurs as a complication of dislocated shoulder, and is one of the reasons for having all such cases X-rayed. If there is any real displacement the tuberosity must be fixed in place with a screw or peg, but if there is not the treatment detailed above suffices.

Separated upper epiphysis is rare, and I need not trouble you with a description to-day.

Fractures of the shaft of the humerus, as I mentioned before, are usually best operated on and plated, because of the danger of injury to the musculo-spiral nerve, but if for any reason this is not done, Middledorf's triangle is the best type of splint to use. It should be worn for three weeks, combined with massage, and after that period active and passive movements can be instituted.

Fractures of the lower end of the humerus include separation of the lower epiphysis and fractures of the two epicondyles and capitellum.

Separation of the lower epiphysis, which, like all separated epiphyses, is really a metaphysial fracture, occurred in 8 per cent. of our cases, and at an average age of 7·5 years. It usually follows a fall on the elbow or hand, and the usual displacement is for the epiphysis to pass back to the inner side and to be rotated backwards as well.

It is important that these cases should be treated at once, or the swelling which results makes reposition impossible.

Injuries of the ulnar nerve are common in these cases, and should always be looked for, as otherwise if they are discovered later they will inevitably be put down to the results of treatment. Full flexion and supination of the elbow joint, combined with pressure over the epiphysis will usually reduce these cases, and they are treated in the full antigravity position of the elbow, which is Robert Jones' position of full flexion and supination. This position is maintained for two to three weeks, depending on the severity of the swelling. At the end of that time it will be found that whereas flexion is full, extension—or the gravity aided movement—cannot be performed fully. This we deal with by adding to the effect of gravity by fixing a weight of 3 to 7 lbs. to the wrist in the form of lead bracelets. At the same time massage and active movements are begun. This usually results in full extension being regained in two or three weeks, but in occasional cases movement under an anæsthetic is needed to break down adhesions resulting from effusion into the joint. Our average time of treatment in a series of cases was 4·7 weeks.

Fractures of the epicondyles are relatively uncommon, but can be treated in the same way as separated epiphyses.

It is most important in these injuries, as indeed it is in all fractures, to secure a perfect anatomical reposition of the fragments, for it may be taken as a law that the amount of callus formed during repair is in direct proportion to the degree of displacement, and in most cases the greater the amount of callus, the more is the function of the limb impaired.

Fractures of the Radius alone.—Fractures of this bone either alone or in conjunction with the ulna constitute over one half of all cases of upper limb fracture, and consequently it occupies an important position in considering treatment.

Fractures of the upper end of the radius are of two definite types. The less common is a fracture through the neck of the bone with separation of its articular end. These cases are extremely difficult, and do so badly with conservative means that I always advise removal of the separated upper end.

The second, commoner type is a fracture of the lip of the articular surface and results from a fall on the hand, impacting the upper end of the radius against the capitellum. These patients are treated by putting the elbow in the full antigravity position for two weeks followed by massage and wrist weight extension.

Fractures of the shaft alone are either greenstick or complete. Greenstick fractures occur at an average age of 9·2 years, and are due to a direct blow on the arm. The treatment is to bend the bone back into position, and to begin massage at once, resting the arm in a sling during the first week. Splints are usually unnecessary.

Complete fractures are more difficult to treat than are fractures of both bones, because the intact ulna is a bar to proper manipulation. We treat these cases on an anterior splint in full supination, putting pads over the site of fracture to correct the common tendency to backward bowing. This treatment is used at whatever level the fracture may be, for reasons which I will explain when dealing with the fracture of both bones. Massage and active movement can be begun in a fortnight.

Fractures of the lower end of the radius are extremely common, and usually very badly treated, being responsible for a very great deal of preventable crippling, mainly owing to a lack of understanding of the functions of a splint, which is often kept on for needlessly long periods as if it were some kind of talisman. Four types of fracture occur in this region, namely (a) Colles' fracture, (b) fractures of the lower quarter of the shaft, (c) separated lower epiphysis and (d) Chauffeur's fracture.

Colles' fracture is remarkable as being the only fracture which is much commoner in women than in men, and it usually occurs late in life, the average age in my series being 53 years. It results from a fall on the hand, being produced partly by hyperextension of the wrist and partly by a direct blow on the lower end of the bone. It is a fracture which runs obliquely through the bone about $\frac{3}{4}$ in. from its articular surface, and the displacement of the lower fragment is constant in type though it varies in degree.

When it is analysed this displacement is found to consist of five distinct displacements, and these occur in varying degrees of severity. The lower fragment is displaced backwards and rotated backwards. It is displaced radially and rotated radially, and it is displaced upwards. These cases must be treated early, and an anæsthetic is essential if there is any real deformity. The deformity is easy to recognise and is very typical, being described as a "dinner-fork deformity," the curve of the fork being the result of the backward displacement and rotation of the lower fragment.

Our method of reduction is to fix the forearm on one bar of a right-angled splint with its angle opposite the wrist joint. The lower fragment is then pushed or hit into position and its radial displacement is overcome. It is easy to test whether reduction is complete as if it is the wrist can be flexed to a right angle, the smallest degree of displacement making this impossible. Treatment depends on the nature of the case. If the fragments show no inclination to slip when they are replaced no splint is used, but massage and active movement is instituted at once. In more severe cases the wrist is put up in full flexion and supination for two or three days, and after that splints are left off and massage begun. I do not believe that under any circurstances is it necessary or justifiable to keep a Colles' fracture in splints for more than five days. Whirlpool baths are of great value in these cases and help greatly in loosening up the tendons. Our average time under treatment is six weeks. In certain elderly patients with rheumatoid arthritis and already existing deformity of the hands bad results are inevitable, but in all other cases if reduction is properly carried out at once it should be possible to get at least a 90 per cent. result.

Fractures of the lower quarter of the shaft represent a rather vague group including vertical fractures of the articular surface and such-like injuries. We treat them on a cock-up splint for a week, more in order to rest the wrist joint than to splint the fracture, and then give them whirlpool baths and active movements.

Separation of the lower epiphysis of the Radius occurs at an average age of 12 years, and represents in the child the same injury as Colles' fracture in later years. The line of fracture is more vertical than in Colles' fracture and the resulting deformity therefore more rectangular. It is readily reduced by pressure on the backwardly displaced lower end. Usually there is no tendency for redisplacement to occur so that splints are unnecessary a simple sling and immediate massage being all that is necessary after reduction. It is most important, however, to secure perfect reduction, as slight displacements lead to serious deformity as growth occurs.

Chauffeurs Fracture is extremely common and is remarkably constant in its position. It is a fracture through the base of the styloid process of the radius running from the joint surface upwards and outwards. Practically no displacement ever occurs, and sometimes it is only possible to diagnose the fracture by X-ray examination. Our treatment has been a cock-up splint kept on for a week, followed

by a sling for a further week or ten days. This is often sufficient, massage being unnecessary unless there is effusion into the tendon sheaths.

Fracture of the ulna alone comprises fractures of the upper end, of the shaft and of the styloid process. Fractures of the upper end include both those of the olecranon and the coronoid process. Fractures of the olecranon is one of the few examples of muscle pull as a cause of displacement, there being no opposing muscle to the triceps. All these cases must be operated on and the fractured portion of olecranon must be fixed back on to the shaft by wiring or plating it into position. Fracture of the coronoid is usually a complication of dislocated elbow, but fortunately occurs only rarely. It is treated with the elbow fully flexed and supinated and usually does fairly well.

Fractures of the shaft alone are either greenstick or complete, the greenstick variety occurring at an average age of 6 years, somewhat earlier than is the case in the radius. They are treated in the same way as greenstick fractures of the radius. Complete fracture of the ulna alone is always due to a direct blow, and while it is easy to reduce owing to the subcutaneous position of the bone, it has an irritating habit of slipping out of position owing to its elasticity. For that reason we use a plaster of Paris splint such as I shall describe for fractures of both bones of the forearm.

Fracture of the styloid process occurs either alone or as part of a Colles' fracture or separated radial epiphysis and is due to an injury occurring with the hand radially abducted. It usually causes little trouble, and is treated on a cock-up splint for a week followed by massage of the ulna muscles.

Fractures of both Radius and Ulna are either greenstick or complete, the former occurring at an average age of 7·9 years, intermediate between the ages of the radius and the ulna. These fractures constituted 15·9 per cent. of upper limb fractures. All these cases do surprisingly well under treatment providing the correct principles are observed.

In the text books of surgery these fractures are divided into those above and those below the insertion of the pronator radii teres. It is stated that in the former the upper fragment is supinated by the biceps, and that therefore the lower fragments must be put into full supination to obtain proper alignment. In those cases where the fracture is below the insertion of pronator radii teres the upper fragment is held midway between pronation and supination by the opposing actions of biceps and pronator radii teres, and therefore you are told to put the lower fragments also half way between pronation and supination. I know of no worse advice in the whole of fracture surgery, and like all bad advice it is very widely followed with very bad results.

There can be no doubt in the mind of anyone treating many of these cases that they must all be put up in full supination, both upper and lower fragments naturally. If this is done correct alignment of both bones must result and restoration of function is perfect. The method we employ is what we call a supination plaster. The elbow is flexed to a right angle and the upper fragments are fully supinated. Plaster bandages are then applied to fix this position. Next the lower fragments are fully supinated and the plaster is continued down, taking in the wrist and extending across the palm and the gap between fingers and thumb so as to prevent any tendency for the forearm to slip round from its fully supinated position. This plaster is left on for three weeks. When it is removed function is usually perfect, while if there is any stiffness a week's massage and active movement will readily correct it. The maintenance of *full* supination during treatment is, however, essential, as if it is not done it is almost impossible to secure it later and a bad functional result ensues. Cross union of the bones is impossible with this method, and nothing could be better than the results which it gives.

Fractures of the Carpus.—The only carpal bone which is at all commonly fractured is the scaphoid, which is injured by the wedge-like action of the radial styloid process. This injury must be suspected when there is swelling and tenderness in the hollow at the base of the thumb after falls on the wrist, and must be looked for in X-ray plates. When such a fracture has little displacement rest for two weeks on a cock-up splint with massage along the wrist tendons the whole time gives good results, but when the displacement is considerable it is best to remove the bone through a small incision or a stiff wrist is apt to result.

The metacarpals.—There is a very distinctive fracture of the base of the first metacarpal

known as Bennett's fracture, which results from a blow delivered with the closed fist. The trapezium acts as a wedge and splits the end of the metacarpal. The method adopted in treating this fracture is to place a tennis ball in the palm and pull the thumb forcibly round it, fixing it so for a week or ten days. Afterwards massage and active movements must be vigorously persisted in or considerable disability may result.

The remaining metacarpals are frequently fractured, either singly, or two or more together, and usually as the result of a direct blow.

It is not sufficiently recognised that flat hand is a deformity even more crippling than flat foot. The arches of the palm are two, namely a longitudinal bony one depending on the curve of the metacarpals, and a transverse one partly bony and partly ligamentous. If either of these is disturbed flat hand results.

In treating fractured metacarpals therefore the maintenance of the bony arch is all important. Fortunately a tennis ball exactly represents the proper curve, and our treatment is to place a tennis ball in the palm and bandage the hand over it. The patient can grip the ball without risk of displacing the fracture, and can in that way obtain minimal muscular movements sufficient to prevent adhesions. Union is usually firm in two weeks and the ball can be discarded.

Fractured phalanges are often extremely difficult to treat. Transverse fractures are satisfactory since when they are reduced there is no tendency to redisplacement, and bandaging the hand over a tennis ball gives a good result.

Oblique fractures on the other hand constantly slip out of position, and the maintenance of the necessary extension is very difficult. A very useful method is to bore a hole through the free edge of the nail and to thread a salmon gut suture through this. If the forearm is fixed to a splint whose end projects beyond the finger traction can then be obtained at the fracture by pulling on the suture, which is then tied to a rubber accumulator at the end of the splint.

The Curvature of Space and Time.

By R. L. WATERFIELD.

1. Introductory Remarks.

It is an essential part of Einstein's theory that the track of a body which is moving freely through space is determined solely by the geometry of that part of space and time through which it happens to be moving. [A "freely-moving body" is a body whose motion is *uninfluenced by collision with any other material bodies*, whether it is moving in a gravitational field or not.] It is also an essential part of the theory that every material body produces a modification in the geometry of the space and time in its vicinity.

Before Einstein's time we used to say that every body "attracted" every other body; that any body, which was far removed from other bodies and was thus beyond the range of their "attraction," moved uniformly in a straight line, and only moved in a path other than a straight line when it was near enough to some other body to be "attracted" out of the straight line.

Einstein's theory states that the study of the geometry of space and time is synonymous with the study of the paths which "*freely-moving bodies*" take through space and time. In empty space far removed from other bodies it says that the geometry is very approximately Euclidean (that is, the three angles of a triangle equal one hundred and eighty degrees, the circumference of a circle is π times the diameter, etc.), and consequently the paths of all bodies through it are straight lines. On the other hand, space in the neighbourhood of a heavy body (like the sun) is not exactly Euclidean (the three angles of a triangle are no longer 180 degrees, and the ratio of the circumference to the diameter of a circle is no longer
space and time in such regions, it says, are "curved," and the paths of all bodies through such regions are consequently no longer straight, but, following the "curvature" of space, become curved—as, for example, the earth's path is curved round the sun.

One might (quite loosely) liken the difference between the two theories to the difference between the motion of a 'bus and that of a tram. A freely moving body appears on the new theory to be "in fact, not a 'bus, but a tram!" One could say that the reason why one 'bus does not collide with another, is that every 'bus driver is "repelled" by the sight of every other 'bus driver similarly occupied. Whereas the reason that one tram does not collide with another, is that the motion of a tram is determined by the properties of the surface on which it moves, and it is a "law of nature" (for of such a kind, I am sure, the London County Council would like to believe that their "laws" were) that the properties of the surface near one tram-track are so modified by that track that another track passing near it can never come within a certain distance of it.

Thus according to Einstein's theory the gravitational field round any body is nothing more than a modification of the geometry of the surrounding space and time, or—as we shall presently make more clear—is an actual "curvature" or "warp" of the space and time in the neighbourhood. That there is actually a local "curvature" of this sort near the sun was indisputably demonstrated by measurement during two recent solar eclipses.

Einstein himself was of the opinion that, in addition to these purely local curvatures in space and time near material bodies, there was also a *general and complete* curvature of space (*but not of time*)—which would mean that if one set out straight ahead in space *in any direction whatsoever*, one would get ultimately back to one's starting-point; *and this would apply equally to a ray of light which also would return to its starting-point.*

More recently Dr. de Sitter evolved a modification of Einstein's view in which not only space, *but time also*, was subject to a *complete and general* curvature in addition to the experimentally demonstrated *local* curvatures. And now, still more recently, Dr. Silberstein has discovered a method by which it should be possible to test the de Sitterian conception of the "world" by actual observation; and has shown that the observations which are even now available do, in fact, lend that conception very substantial support.

In what follows we shall attempt to give some more or less definite idea as to what is meant by the "curvature" of space and time; and especially of what is meant by the de Sitterian conception of the "world," of the remarkable consequences to which that conception leads, and of the way in which it is being experimentally tested. It must be realised, however, that both the Einstein and the de Sitterian "worlds" are extensions from, and dependent on, the Einstein Theory, so that a verification of *either* would constitute a verification of that theory.

2. Space, Finite yet Unbounded.

The question whether space is finite or infinite must, on Newtonian theory, be classed among those questions which are positively indecent. If you said space was finite, I should ask you to build a wall round it. If after all the trouble you had taken in the building of it I went and made a hole in it, it is quite obvious which of us would look the fool. The difficulty of an infinite space is not quite so obvious: on the Newtonian theory the conception of infinite space leads to one of two results, either of which is mathematically untenable. On Einstein's theory, an infinite space leads to still more embarrassing questions which probably cannot with impunity be ignored.

It was to escape simultaneously from these two difficulties—the difficulty, on the one hand, of an infinite space and, on the other, of a bounded space—that Einstein was led to the conception of a space that was curved in the same *sort* of way as the earth's surface is curved. The earth's surface is finite yet at the same time unbounded: there is room for only a limited number of things on it, yet one can walk straight ahead for ever without coming to an edge—one merely gets back to one's starting-point. It is in this sense that Einstein's space is curved; it also is *finite yet unbounded*. There is a difference however between the two cases. The earth's curvature brings one back to one's starting point if one sets out straight ahead in *any* direction *on the earth's surface;* the "curvature" of space brings one back to one's starting-point if one sets out straight ahead in *any* direction *in space*. The difference is that, whereas the possible directions on the earth's surface are limited to the "horizontal" plane, the possible directions in space include equally the "up and down" directions. That is why we can picture easily the curvature of the earth's surface—which means a two-dimensional surface curved in a *quite tangible* third dimension—

and yet are unable to form any mental picture whatsoever of the "curvature" of space—which would mean a three-dimensional continuum curved in a fourth dimension, of which, in the nature of things, we can have no cognizance.

3. Meaning of Curved Space.

Yet although we cannot picture the "curvature of space" we can, I think, arrive at some very definite idea of what, by the phrase, is being driven at: and this we shall do by considering the precisely similar difficulties that would be experienced by a race of two-dimensional beings living on the earth's two-dimensional surface if they tried to picture it as curved in the form of a sphere. These beings would only be able to conceive of the two horizontal dimensions—"forwards and backwards" and "right and left": their *whole outlook* on life would be confined within the horizontal plane and would follow precisely any curvature in it, while *the "up and down" dimension for them would simply not exist.* If they set out straight ahead round the earth, they would be furiously hard put to it to explain how they had got back to their starting-point. The idea of the earth's surface curving back again underneath itself would be impossible for beings who can have no conception of "above" or "beneath." The mathematicians among them could express the idea mathematically; and to their non-mathematical readers they might try (rashly) to "explain" that as a one-dimensional straight line might be curved in a second dimension to form the one-dimensional circumference of a two-dimensional circle, so the two-dimensional surface of the earth was curved in a third dimension to form the "two-dimensional circumference" (surface) of a three-dimensional circle" (a sphere). Quite similarly we "explain" the curvature of space by saying that, as a two-dimensional surface may be curved in a third dimension to form the two-dimensional surface of a three-dimensional sphere, so our three-dimensional space may be curved in a fourth dimension to form the "three-dimensional surface" of a "four-dimensional sphere."

It will be seen further that any irregularity in the earth's surface—mountain, valley, mole-hill, or rabbit-hole—is nothing more than a local excursion (or curvature) of the two-dimensional surface into the third dimension. These local curvatures are superimposed upon the one general curvature due to the earth's spherical shape. The two-dimensional beings would, of course, be unable to appreciate them as such any more than they can appreciate the earth's spherical figure as such. They could, however, infer the existence of local curvatures (rabbit-holes, etc.) by exact geometrical measurements; for whereas geometrical figures drawn where the surface was *level* would have approximately Euclidean properties, figures drawn over a *mole-hill* (for example) would show marked deviations from Euclidean properties. Thus, if they measured a circle drawn on *level* ground, they would find that the circumference was about 3·14 times the diameter; but if they measured a circle drawn round the base of a *high mole-hill*, the circumference would come out a great deal less than 3·14 times the diameter—because, being two-dimensional, these beings would measure the diameter, not *through* the mole-hill, but *over* it, following its curvature.

From exactly similar (though more accurate) measurements of circles, our two-dimensional beings could infer the spherical shape of the earth; that is, they could do this without the trouble of walking all the way round it. For, it is clear, if they measured the ratio of circumference to diameter of a *small* circle—say a three-inch circle round the north pole—they would find it to be 3·14: whereas if they measured the same ratio in the case of a larger circle—in the extreme case, a circle round the equator—they would find it *less* than 3·14 (in the case of the equatorial circle it would be, in fact, 2); and this, because they would measure the diameter, not *through* the earth, but (following its curvature) *over* the north pole.

To sum up these points: a two-dimensional being on the earth's surface could never picture or be directly conscious of the local curvatures (mole-hills or rabbit-holes) or of the general curvature of the earth's spherical figure; but he could accurately infer and demonstrate the existence of both kinds of curvature by geometrical measurements: a deviation in the properties of the geometry of any part of his space from those of Euclidean geometry would imply a curvature of that part of the earth's surface into a third dimension (a mole-hill, rabbit-hole, or the spherical figure of the earth). In exactly the same way we, who are three-dimensional, are quite unable to picture a cur-

vature of our three-dimensional space into a fourth dimension; but if we could show by measurement that there was, either locally or generally, a deviation from Euclidean properties in the geometry of our three-dimensional space, then we could infer definitely that there was such a curvature.

Now, as we have said, it has already been shown by observation that locally in the neighbourhood of heavy bodies (e.g., the sun) our three-dimensional space deviates from the Euclidean properties which "hold" in space far away from such heavy bodies. These deviations are to be interpreted as due to local curvatures of space into a fourth dimension; and, as we have said, they are actually to be looked upon as *being* the gravitational field, as being that which *determines* the motion of a body in a gravitational field (e.g., the earth's motion round the sun).

4. Four Dimensional Space-Time.

Now in Einstein's Theory the ordinary three dimensions of space and one dimension of time are replaced by the four-dimensional "space-time" discovered by Minkowski. When children, we had difficulty in understanding why the vertical of a man at the pole was the horizontal of a man at the equator, how it was there were no *absolute* distinctions between the three spacial dimensions. To appreciate the significance of Minkowski's space-time we must get over the similar prejudice that there is any real distinction between the time dimension and the space dimensions. *In the new space-time the "past and future" of one observer may be the "vertical," the "sideways," or the "backwards and forwards" of another observer differently situated.* It is not strictly true to say that time *is* the fourth dimension; rather, it is *one* of the four dimensions of space-time.

It follows, since it is impossible to separate space and time, that when we speak of a local curvature of *space into a fourth dimension* we necessarily imply a local curvature of four-dimensional *space-time into a fifth dimension.* Thus the peculiarity which has already been experimentally demonstrated in the neighbourhood of the sun is in fact a deviation in the geometry—or (what is the same thing) a local curvature into the fifth dimension—of the *four-dimensional space-time* in the sun's vicinity. It remains for us to inquire whether in addition to such *local* deviations or curvatures (the analogues of rabbit-holes) there is a *general* curvature of space-time (the analogue of the spherical earth).

5. The *General* Curvature of Space-Time.

And so we have now to consider a five-dimensional system—three dimensions of space, one of time, and one of curvature (i.e., of the gravitational field). Here we shall part company with Einstein in whose "world" time, unlike space, is *not* subject to a general curvature, we shall consider merely the de Sitterian "world" in which time, like space, *is* subject to a general curvature. In this system space-time becomes the "four-dimensional surface" of a five-dimensional sphere."

[According to Einstein's conception of the "world," space-time was the "four-dimensional surface" of a "five-dimensional *cylinder*" (as opposed to the de Sitterian "*sphere*"). The transverse curvature of the cylinder represented curved space, while the longitudinal "straightness" of the cylinder represented non-curved time. An *a priori* objection to the cylindrical conception is that in it the relativity of space and time is not perfect; there would be ultimately an *absolute* distinction between the space and the time dimensions.]

What, now, is the observational evidence for the de Sitterian "world"?

Turn again to our two-dimensional beings. One of them is at the earth's pole, another at the equator; and by some means they can see each other. It is clear that one of the two dimensions of the equatorial being, his north and south dimension, is in the same direction as the vertical dimension at the pole. But the polar being is unable to appreciate this direction, the vertical dimension being outside his two-dimensional consciousness. He will thus "lose" one of the dimensions of the equatorial being, who will therefore become for him one-dimensional. Similarly the equatorial being will "lose" one of the two dimensions of the polar being.

In the same way, if space-time is a five-dimensional sphere" (time as well as space being curved), and if we could see stars situated half-way between us and our antipodal point on this sphere, *we should "lose" one of their dimensions, to wit, their time dimension.* Their time would be progressing at right angles, as it were, to our space-time—in a fifth dimension of which we can have no cognizance. To us it would appear that in that distant region

time had stopped and all motion was at a standstill. As Professor Eddington has said, we might imagine that we were witnessing the *Mad Hatter's Tea Party* where it was always six o'clock! Actually, if we took ourselves into that timeless region, we should find that time and motion were there proceeding quite normally; but, looking back, we should see that it was now on the earth that happiness (apparently) had become perfected and all motion had ceased. This phenomenon does not occur in Einstein's "world," only in Dr. de Sitter's.

6. Observational Evidence.

In regions intermediate between us and the completely timeless zone there will be a *partial* (apparent) slowing up of time and motion; the nearer the stars are to this zone halfway between us and our antipodes, the more pronounced is this slowing up. Now, in particular, the light vibrations of stars must be slowed, and that will mean that the spectral lines of very distant stars will be shifted towards the red end of the spectrum—*the nearer the star is to the timeless zone the greater will be the spectral shift.* A shift in the spectral lines, however, is also produced by the motion of a star towards or away from the earth—if the star is approaching, the shift is towards the violet; if receding, towards the red. There is thus no means of distinguishing between a shift which is due to the motion of a star away from us, and one due to the curvature of space-time.

Dr. Silberstein, however, has deduced from Dr. de Sitter's theory a formula which connects the degree of curvature of space-time and the distance of a star with the *combined* shift due both to curvature of space-time and to motion. One need not, therefore, trouble to disentangle the two sorts of shift: given the *combined* shift and the distance of the star one can find immediately the radius of the curvature of space-time. Dr. Silberstein has applied his formula to the eighteen most distant star-clusters for which the distances and the spectral shifts are known with reasonable certainty. He considers that the good agreement between the values for the curvature of space-time derived separately from these eighteen different objects is very definitely in favour of Dr. de Sitter's, as opposed to Einstein's, "world."

The actual result he gets is that the circumference of curved space is about ten million, million times the distance of the earth from the sun—a distance which, if it was not curved, light (travelling 186,000 miles per second) would take about 1,000 million years to traverse. As a matter of fact a light ray or a material body could never, from our point of view, make the journey; *it could never get past the timeless zone halfway to our antipodes, where all velocities are reduced to zero.* As Dr. de Sitter points out, the return to the starting point could only happen after the end, or before the beginning, of eternity!

Finally, we must notice, the curvature of time on this theory does *not* imply that history will repeat itself. The "time" of space-time is not ordinary time; it is "imaginary time," which is a mathematical function of ordinary time. It is the "imaginary time" which is all-important in Einstein's Theory and is spherical; while the *ordinary time* corresponding to it is curved like an *hyperbola*, its two arms—the past and future—diverging always from each other to infinity and never joining up. If it had been ordinary time that was spherical, that would have implied the repetition of history: but, as it is, there is no need to fear the horrid contingency of returning again to the nursery.

Interesting Cases.

No. 3.—Meningococcal Meningitis.

K. B., aged 27, admitted to Esther Ward under Dr. Beddard's care. There had been no illness until three years ago when an operation was performed for acute mastoiditis of the right side. Until two months ago muco-pus had occasionally discharged from this ear. A month before admission a shivering attack was followed by the appearance of small red spots on the trunk and legs. In a week these had disappeared, but recurred after 14 days with a recrudescence of symptoms—pain in the neck and shoulder joints; sluggish cerebration.

During the ten days before admission night sweats and vomiting occurred.

The only signs on admission were a few

petechiæ on the abdomen and legs, some head retraction, a positive Kernig sign and slight mental confusion. Pain in the head and back of the neck was severe. All the reflexes were normal and the eyes showed no changes. The history of middle ear disease suggested the possibility of a cerebral abscess, but the petechiæ and joint pains weighted the scale in favour of meningococcal meningitis.

A lumbar puncture was done and 30 c.c. of turbid fluid under marked pressure withdrawn. The diagnosis was sufficiently establish to inject 25 c.c. of anti-meningococcal serum intrathecally. Chemical examination of this fluid:—2,000 cells, mostly polymorphs; no sugar; protein ·26 per cent.; chlorides ·65 per cent. This was repeated next day (Friday). On Saturday Dr. Symonds had a general anæsthetic given and flushed the spinal canal with 200 c.c. of saline via the "Cisterna and Lumbar Puncture" method. Anti-meningococcal serum was injected by both routes.

It is suggestive that the meningococcus was found in those first three specimens of C.S.F. but never on numerous subsequent occasions.

For ten days, except for the gradual exhaustion of the patient, the condition remained much the same, the temperature swinging daily from 97—103° F., pulse 100—150.

At this time Mr. Ogilvie was called in and punctured the lateral ventricle after having drilled a hole in the skull behind the left ear with the aid of a local anæsthetic.

The temperature remained normal for four days following this manœuvre and then commenced to swing again, but at 48-hourly intervals. A second unsuccessful attempt was made to drain the lateral ventricle a fortnight later.

The head retraction had now disappeared and the mental condition was much brighter. Lumbar puncture which had been repeated nearly every day for three weeks was stopped. Two belated bouts of pyrexia and headache, during convalescence, were immediately relieved by lumbar puncture. Recovery was rapid and good. The only stigma, a slight weakness of the right leg, had almost recovered on discharge $2\frac{1}{2}$ months after admission.

Altogether 185 c.c. of anti-meningococcal serum were given intrathecally.

It is seldom that a meningococcal meningitis recovers so completely from such a severe illness.

L. W. C.

Reviews.

The Elements of Surface Anatomy for Students of Medicine. By I. Maclaren Thompson, B.Sc., M.B., Ch.B. (Edin.). Published by Messrs. E. & G. Livingstone, of Teviot Place, Edinburgh. *Price* 3*s*. 6*d*.

NO branch of the teaching of anatomy with, perhaps, the sole exception of the lymphatic system, is more pitifully neglected by the average dissector than the surface projection of the deeper parts. Once the skin and superficial fascia have been removed, all thought of surface relations is banished in the undue haste to penetrate the deepest layers. Books on this subject, therefore, are seldom referred to until the urgent necessity of rapidly approaching examination forces the reluctant student to attempt to cram sufficient data into his head to enable him to conceal his ignorance from the examiner.

The author of this admirable little text-book has attempted to overcome this unnatural diffidence on the part of the pre-clinical student by including only those structures which are deemed likely to be of importance to the general practitioner, and of which it is reasonable to insist upon a knowledge in an undergraduate.

In order to render the book more interesting a certain number of clinical facts have been incorporated in the text; by this means it is hoped better to impress upon the memory only the most important of the facts. In no sense is the realm of applied anatomy encroached upon by this procedure.

Illustrations have purposely been avoided in order to force the student to seek out the "bony points" upon himself and upon his friends. We would suggest that a substitute might have been offered in the form of blank pages upon which the thoughtful reader might illustrate the book for himself.

Altogether an excellent effort well worth the attention of graduate and undergraduate both in the pre-clinical or clinical periods.

Guy's Hospital Reports. Vol. 75 (Vol. 5, Fourth Series), No. 3. Published by Messrs. Wakley & Son (1912), Ltd., London. *Price* 12*s.* 6*d. net.*

THE third number of this year's volume of "Reports" opens with a very welcome addition to the many studies on John Keats. Sir William Hale-White has made a very thorough study of his life as a medical student, in which capacity Keats is especially interesting to Guy's men. His life at Guy's has received but little notice from most of his biographers and the present article is as excellent as it is belated.

J. M. H. Campbell reports results on an investigation on the weight, vital capacity and pulse-rate before and after exercise and physical fitness in health, and E. C. Warner and W. D. Hambley give their results of an investigation into the physiological basis of the U-tube manometer test. A. A. Osman, in an interesting account of the after-results of fifty-six cases of acute nephritis, finds that a very fair estimate of renal capacity can be formed by an intelligent inquiry into the response to the ordinary affairs of daily life, aided by a careful clinical examination, without making use of the renal efficiency tests and finds that the proportion of cases, showing incomplete recovery, is high—35-7 per cent. in his series.

Other articles are written on eosinophilia in echinococcus infection (A. C. Hampson), a case of tetanus (R. B. Fawkes and F. Marsh), and on operation for acute appendicitis (R. P. Rowlands). The second article on Massage and remedial exercises in medicine comes from the pen of the Editor of the "Reports" and treats of the abdominal and pelvic muscles and their treatment by massage and remedial exercises in visceroptosis, rectal and uterine prolapse and constipation, and this is followed by an article on genital prolapse, by H. B. Butler.

The article by A. J. Kohiyar on some observations of the cutaneous tuberculin test on Von Picquet, which attempts to find a method of differentiating clinically non-tuberculous persons, who give a positive result, from tuberculous patients, does not increase the value of this test to any very marked degree.

The number concludes with an account of two cases of diverticula from the lower end of the œsophagus (A. F. Hurst), and a description of an anterior pharyngo-œsophageal pouch as a cause of dysphagia (A. F. Hurst and P. J. Briggs).

The "Reports" always contain much of interest, but the present number will probably be found to be of less value than the two earlier parts of this year's volume.

The Early Diagnosis of the Acute Abdomen. By ZACHARY COPE, B.A., M.D., M.S., Lond., F.R.C.S.Eng. Published by Humphery Milford, Oxford University Press. Third edition. *Price* 10*s.* 6*d.*

WE are pleased to welcome a third edition of this excellent treatise. 220 pages of deduction from the facts elicited by careful and prolonged scientific investigation and observation.

No one appreciates better than the hospital man the appalling results which follow the neglect of (which is synonymous with "sitting-on") an acute abdomen. It is hoped that the present generation will do much to eradicate the perforated gangrenous appendix by spotting the case whilst it is still an acute appendicitis; and that soon the take-in firm will no longer be troubled with week-old appendices.

This book already forms a valuable addition to the consultant's bookshelf. It should be read and re-read by every general practitioner and student alike, for though its substance may not be above criticism its spirit most certainly is.

Aids to Surgical Diagnosis. By C. P. G. WAKELEY. Published by Messrs. Baillière, Tindall & Cox. *Price* 3*s.* 6*d.*

WHILST we regard with great suspicion all books whereby great knowledge may be gained in short time, it is necessary to admit that this book properly used should prove a great boon to the student.

Only by experience can a differential diagnosis be made with confidence; but before experience can be gained, a working knowledge is essential. It is to the junior student, therefore, that we recommend this book. It will tell him the more common of the possibilities, in any one case; and should help him in memorising a list of these possibilities. So far it will achieve a useful purpose. For the rest the student must rely upon the cases he has seen.

Used in conjunction with the Aids to Surgery it should prove useful for rapid pre-examination revision.

Once again it cannot, and the author does not intend it to, replace the larger and more orthodox text-book.

Sport.

Rugby.

Guy's v. Harlequins.

WE were beaten by the Harlequins for the first time for five years and not disgracefully either. The Harlequins had a very strong team against us. W. W. Wakefield, H. P. Marshall, J. S. Chick were in the pack and R. H. Hamilton Wickes in the threequarter line, but neither J. Gibbs nor V. G. Davies, who are both Internationals, were able to play. We had a very representative side out, except for V. R. Preen and J. W. Schabort, and no doubt we missed them both. J. G. Van Schalkwijk went to stand-off and almost at once put in an excellent run, ending in a tackle which developed his injury sustained at Gloucester. Twice again during the game was he heavily tackled, but he kept on with the utmost pluck and played a wonderful game. We had all the best of it at first and when the 'Quins did get dangerous they were sent back by fine kicking on the part of Steyn and P. D. B. Spence. Very neatly Fellowes-Smith got away to crosskick, but the defence of the Harlequins was sound. Our side were the first to score E. H. Hutchinson kicking a penalty from long range and wide angle.

After this the Harlequins set up a very hot attack which ended in Wakefield picking up and dashing over in his most determined fashion. A great kick from the touch line by Hamilton-Wickes added the extra points. Our forwards got the ball often, but the backs did not do much with it, often kicking direct into Wainwright's hands, a most useless proceeding, H. Spence, in fact, did more kicking up field than into touch. There is a lack of dash about the pack, no abandon and much too slow in the open. W. H. Myburgh played a wonderful game, hooking finely and good in every department. Popplewell was another outstanding player. One could find little fault in the scrummages and all did their share in the tackle. The first half closed with a splendid run by Steyn, he faced Wainwright and elected to pass, alas, the pass went wrong, Clarke did not accept.

Tremendous was the pressure on our line for the first 15 minutes on the second half. Wakefield, Hodge and Worton all got almost over and then Steyn with a magnificent kick cleared to half. Back came the homeside again and this time Spence did the needful. The full back made no mistake the whole afternoon. More hot work in our "25" and Hamilton-Wickes cross kicked. We got out of this trouble miraculously, only to see the ball quickly passed out to Wickes again and he scored by the corner flag and himself kicked a really wonderful goal. Guy's got their second wind and forced the home side to their own "25." But being penalised we had to go back beyond half way. From here Van Schalkwijk ran most cleverly, but Fellowes-Smith could not gather the final rather awkward pass. T. O. Garland the next to get away found Clarke absolutely out of position, and now with the end in sight Steyn was laid out. Recovering from a very bad shake up he soon got up full steam and cleared the way right up to Wainwright, again the pass went wrong and that ended a jolly good game with the Harlequins victors by 2 goals to 1 penalty goal, 10 points to 3.

Steyn and Van Schalkwijk were splendid, but the support they got was poor, either their transfers were given awkwardly or taken badly. It must be left at that. Myburgh, P. D. B. Spence and Popplewell we have mentioned. H. Spence must find touch and try to give his passes more snappily. He has plenty of football in him and should make a very useful player. We seem to want to develop a more direct way of getting to the line and more determination to get there. T. O. Garland did most valiantly, he tackled, played well up to his opposing half, passed and ran whenever occasion promised. It was not his fault we lost. Having now had ample opportunity of seeing the Guy's team, one feels sure we only require practice and a little more weight, pace and "ginger" among the forwards to make Guy's as good as many of its predecessors and better than some.

Guy's Team.—P. D. B. Spence, G. Fellowes-Smith, H. Spence, C. L. Steyn, G. Clarke, T. O. Garland, J. G. Van Schalkwijk, W. H. Myburgh, E. W. Hutchinson, J. W. Popplewell, J. H. Richmond, J. D. Visser, C. Kurtz, W. Hops, N. L. Eckhoff.

Guy's v. Old Blues.

THIS match had been much looked forward to, and the fog clearing just in time, the spectators had a good view of a very sporting encounter. The match was played on our own ground on Saturday, October 31st. Neither side were at full strength, but they were well matched, which after all is the great thing. The Old Blues for once adopted the orthodox formation, and although, in consequence, they were one short behind the scrum, their defence was remarkably strong. Guy's, who played in white, started vigorously, and the forwards have never played better than during the first half of this game. W. H. Myburgh has made a pack of eight men, and is to be congratulated. Not only did these men rush well in the open (though they must yet get more forceful next the line), but the heeling and holding were good. Often, though, as the ball came out to the three-quarters, and often, as they handled it, nothing came of their passing. H. Spence had an off-day; never mind, we all have off-days, greater players than he have suffered what may be called from "slippery hands." Next match, or the one after, he will run into form again. Guy's will be glad of him in games to come.

W. B. Franklin, the old Oxford Blue, was in fine fettle during our aggressive period; he had much to do. V. G. Doyle as well, for us, fielded and kicked splendidly. Doyle compared very favourably with his more noted opponent. Twice did Guy's get the ball over the line and yet did we miss the touch. A fine run by Fellowes-Smith and another by T. O. Garland. What a pity he didn't pass on facing Franklin. Then Cockerill and the dashing Hodgson led the Old Blues to attack us heavily. A poor attempt at a dropped goal brought relief to our men.

In the second half we lost the ascendancy. Cockerill put new life into his men, and the longer they played the harder they attacked. Their forwards were now the better, and our lead of 1 try, a score that Steyn had obtained just before the interval was in danger. The most dangerous of the Old Blues were S. H. Wales and G. K. Cooper, but their passing, like ours, seemed to break down at the end of the bout. Hutchinson was playing well and so was Cameron, and his re-inclusion after his injury strengthened the side. J. D. Visser is a forward to be persevered with. These men at length headed a dash downfield and Fellowes-Smith dashed away to cross kick, Clarke crossing the line with a good burst for our second try. E. Hutchinson took both kicks at goal. They were both taken from a point wide of the posts, the first attempt only just missing. Again were we pressed back, until Garland came away splendidly; in the punt ahead and follow up the ball rolled dead. At the other end our men tackled bravely, and on one occasion the Old Blues had a rare chance, but no one could hold the ball, although our defence was buckled up. Cooper was overwhelmed by Fellowes-Smith and the ball came right back to the left wing of the Visitors' three-quarter line, where Clarke put Bennett into touch by the flag. Now came a long kick by Spence, only to be fielded by Franklin and touch found by the same corner flag. From the line out, almost beneath the posts, a Guy's defender punted for long touch. There was no one near Franklin, who fielded cleanly, and taking his time and sure aim, he dropped a magnificent goal with the very last kick of the match. It was a fine kick and a grand ending to a match that was enjoyed by players and spectators alike.

Of Myburgh and his forwards we have spoken. T. O. Garland was excellent and P. D. B. Spence filled his novel position exceedingly well. Boyle was a great success. The three-quarters seemed, as far as the centres were concerned, to give their passes badly and the wingmen suffered accordingly. Score—

Guy's 2 tries (6), Old Blues 1 dropped goal (4).

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, C. L. Steyn, H. Spence, G. Clarke; T. O. Garland, P. D. B. Spence; W. H. Myburgh, G. G. Cameron, J. Popplewell, J. D. Visser, W. Hops, E. W. Hutchinson, C. Kurtz, J. H. Richmond.

Guy's v. Bristol.

SINCE the great war I cannot recall so heavy a defeat as 29 points to nil. This was the result of our game at Bristol on Saturday, October 17th. A very sad result no doubt. It is not really difficult to account for. We had not a full side out and therefore some allowance must be made. The next point is W. H. Myburgh was not present. The pack missed him and rather appeared like

leaderless men, without concerted action or definite aim. This should reflect no reflection on the leader of the day. It is difficult to command at a moments notice. The captain, V. R. Preen, was injured during the game. Last year's captain, J. G. Van Schalkwijk, was on the damaged list and could not assist. His place was taken by E. Spence, a brother of the full back, and here again was an absentee, P. D. B. Spence being engaged in the Finals at Queen's Club.

These are facts, please note, not excuses. We play with the best team available and not for one moment would one suggest that Bristol's victory would not have been great even could all our guns have been brought into action.

Bristol's score was 3 goals (one of which was dropped) and 5 tries to nothing from the Hospital. The tries for Bristol were gained by Spoors, Corbett, Pickles and Tucker, all Internationals. Other try getters were Norman, Prowse and Evans. E. W. Hutchinson, J. R. Popplewell, and once more must we mention J. H. Richmond, were the pick of our forwards. Our defence was not strong. Clarke did all he could also the other wingman, Fellowes-Smith, Boyle as well did his utmost. The Bristol attack was both versatile and strong. From this set back, we shall hope to gain strength. There is no need for despondency. If we cannot always be at the top, we can and shall, always strive to get there.

Guy's Team.—V. G. Boyle, G. Fellowes-Smith, C. L. Steyn, E. Spence, G. Clarke, T. O. Garland, V. R. Preen, E. W. Hutchinson, J. R. Popplewell, W. Hops, J. H. Richmmond, E. Radford, N. L. Eckhoff, J. D. Visser, C. Kurtz.

Soccer.

Guy's v. Old Finchleians.

THIS game was played at Finchley on October 10th, and resulted in a defeat of 6 goals to 1.

We were not at full strength and none too fit, and were beaten by a faster and cleverer side. The season is yet young and there is plenty of time for the team to settle down before the Hospital matches.

We held our own in the first half, Williams scoring with a very fine shot. The first ten minutes of the second half showed up our weaknesses and our opponents put on four goals. A very pleasant game ended with the score as above stated.

Guy's Team :—Henderson; Smallshaw, Siggers; Blaikley, Couch, Allott; W. Evans, E. Evans, Williams, Walters, Fulford.

Guy's v. Solefields, Sevenoaks.

THIS game was played on October 17th at Honor Oak Park, in a strong wind, and resulted in a win for the Hospital by 1 goal to nil—the goal being scored by L. S. Williams early in the first half.

The score hardly reflects the superiority of Guy's, who were chiefly on the attack but could not manage to take advantage of their chances :—

Guy's Team :—Fitzgerald; Hancock, Smallshaw; J. Gray, Couch, Blaikley; Kendrick, Evans , Williams, Walters, Fulford.

Guy's "A" v. University College "A."

PLAYED on Wednesday, October 21st, at Perrivale. It was a very fast, keenly contested game, which resulted in a win for Guy's by 4 goals to 2 goals.

Ginn won the toss and decided to play with the wind. The first 15 minutes proved to be a ding-dong game every player being called upon. The wing men of both teams being well fed by the halves resulted in many anxious moments for their opponents. Guy's were the first to score. During a mêlée near the U.C. goal Calder obtained possession of the ball and easily beat the goalkeeper with a well-placed shot. This roused the U.C., and playing well together deservedly drew level after a further 10 minutes play, Rodda, inside left. scoring. Soon after Cantor again gave Guy's the lead with a shot which struck the goalkeeper and rebounded into the goal. Play continued to be keen but no further scoring resulted before the interval, although both goalkeepers were called upon to save some well-placed shots. Half-time score, Guy's 2, U.C. 1.

On resumption of play Guy's began to get the better of the exchanges, nevertheless, U.C. continued to be dangerous, breaking away several times and but for Evans, who made some brilliant saves, would have equalised.

After 20 minutes play Cotton obtained the ball and making a good run centred for Calder to deflect the ball into the net. Calder further increased Guy's lead by scoring his third with a fine shot from the left wing. A few minutes from time U.C. broke away and Horsman, right half, scored.

The following represented the Hospital:—Evans; Siggers, Robertson; Blaikley, Ginn, Daplyn; Cotton, Allott, Cantor, Calder, Cathie.

Guy's "A" v. Old Grammarians "A."

PLAYED on Saturday, October 24th, at Beckenham. Owing to a late "kick-off" it was only possible to play 35 minutes each way. Guy's kicked off and it was soon evident that their forwards were experiencing difficulty in keeping the ball in play on account of the extreme narrowness of the pitch. thus preventing their usual long-passing game. The Old Grammarians were the first to score. After ten minutes of scrappy play the Grammarians' outside right received a pass and sent in a hard cross shot which Henderson just failed to push round the upright. It was 15 minutes before Guy's equalised, Fitzgerald obtained the ball, tricked two opponents and sent in a low hard drive which struck the upright and entered the net. The interval arrived with no further scoring. Half time score, Guy's 1, Old Grammarians 1.

On the change of ends the Old Grammarians soon scored two goals. Guy's were awarded a "free-kick" soon after. Siggers took the kick and dropped the ball in the Grammarians' goalmouth for Calder to score. In a short space of time Fitzgerald scored an equaliser for Guy's. Taking advantage of errors made by Guy's players the Old Grammarians scored 3 easy goals in quick succession, thus winning 6—3.

The following represented the Hospital:—Henderson; Robertson, Berman; Siggers, Ginn, Daplyn; Cotton, Fitzgerald, Cantor, Calder, Cathie.

Guy's "A" v. R.M.A. "A."

PLAYED on Wednesday, October 28th, at Woolwich. The R.M.A. proved to be a much improved side, extending Guy's fully, who won a very keen, fast and enjoyable game by 2—0. Guy's played a much more skilful game than their opponents, but, the latter were faster on the ball and used their weight to greater advantage; frequently robbing Guy's players of the ball by speedy tackles or heavy charging. Guy's kicked uphill during the first half and the play ranged from one end of the pitch to the other, both teams making frequent excursions into their opponents territory. During these raids, Cathie and Cotton, Guy's wing forwards, were often prominent. After 30 minutes of strenuous play. Calder obtained the ball, evaded two opponents and unselfishly passed for Channon to score with a low drive. The play continued to be of an even nature, but Guy's were always more dangerous in front of goal than the R.M.A., the latter, however, were unlucky not to equalise just before the interval, when their inside right obtained the ball and sent in a hard shot from 25 yards range which had Fitzgerald beaten, but struck the upright and rebounded into play to be cleared. Half time score, Guy's 1, R.M.A. 0.

On resuming Channon defended Guy's goal and Fitzgerald took the former's position at inside left. After 20 minutes Tingle gave Guy's a further lead by scoring from close range. Cotton, Ginn and Fitzgerald tested the R.M.A. goalkeeper with good shots which he did well to save. The R.M.A. were well served in goal, right back and centre half. but the forwards were weak in their finishing before the goal. Calder led Guy's attack ably. while Daplyn and Robertson at back played steadily.

Result, Guy's 2, R.M.A. 0.

The following represented the Hospital.—Fitzgerald; Robertson, Daplyn; Siggers, Ginn, Henderson; Cotton, Tingle, Calder, Channon, Cathie.

On Saturday, October 31st, at Malden, against School of Economics, Guy's "A" won 5—4.

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

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Hospital Information, etc.

Notices.

A GENERAL MEETING of the Students' Clubs will be held in the Physiological Theatre on Tuesday November 10th at 4.30 p.m.

AGENDA.

1. *Minutes of last meeting.*
2. Statement of Accounts.
3. Election of Representative on the Committee.
4. Catering.

W. D. DOHERTY, *Hon. Sec.*,
Guy's Hospital, Students' Club.

Guy's Hospital Pupils' Physical Society.

THE Honorary President, Sir Charters Symonds offers a prize of £10 for an essay on "The Results of the Surgical Treatment of Empyema at Guy's in the last 50 years." The prize will, if two essays of sufficient merit are submitted, be divided into portions at the discretion of the judge.

At the invitation of the Secretaries, Sir Charters Symonds has consented to act as judge.

He wishes it to be known that candidates are at liberty to consult the Secretaries of the Society for advice as to how the subject should be best approached and dealt with.

The names of the candidates must not appear on their essays. Each essay is to bear a device or motto and be accompanied by a sealed envelope containing the name of the candidate with the device or motto clearly marked on the outside.

All essays to be handed in to one of the Secretaries on or before Saturday, May 31st. 1926.

The names of the successful candidates will be announced at the Inaugural Meeting in October, 1926.

All Students now holding ward appointments and all qualified men holding a resident appointment at the Hospital on and after November 16th, 1925, are eligible.

Attention is also drawn to the subject for the Treasurer's Prize Essay which will be found on the Society's Notice Board in the Colonnade. The regulations governing this prize are printed in the Clubs' Union Year Book.

GRANT MASSIE,
MAURICE E. SHAW,
Hon. Secretaries.

Pass List.

Conjoint Board.

Pre-Medical Examination.

Physics.

B. Deggots. K. P. Smith.
A. T. G. Garnett. R. J. Wheatley.

First Examination.

Physics.

H. B. Thornton. M. D. Tomlyn.

Second Examination,

Part I.

Anatomy and Physiology.

G. E. Aling. †E. M. MacLachlan.
G. G. Cameron. †L. Miller.
*G. C. Campbell. G. W. Oliphant.
R. Cutler. *E. H. Sears.
K. S. Keele.

*Physiology only. †Anatomy only.

Part II.

Materia Medica and Pharmacy.

P. J. Gonsalves. S. C. Lewsen.
T. C. Lansdale. R. Maneschewitz.
H. S. Gaussen. J. G. O. Brown.
J. H. de Jager. P. M. Deville.

Society of Apothecaries of London.

October, 1925.

Surgery.

C. L. Frochlich. *H. J. F. Wood.
*P. B. Skeels.

Medicine.

A. M. El. Mishad. C. L. Frochlich.

Forensic Medicine.

*H. J. F. Wood.

Midwifery.

T. C. Pain. *H. J. F. Wood.

*Have now completed the Examination.

L.D.S.

Preliminary Science Examination.

E. K. Uren. B. Cohen.

Appointment.

Dr. G. Dunderdale, District Surgeon, Pietermaritzburg.

Births.

CARLILL.—On October 24th, 1925, at North Gate, Regent's Park, the wife of Hildred Carlill, M.D., of Harley Street—a son (Hildred John).

PARISH.—On October 16th, 1925, at 1, Albert Road, Withington, Manchester, to Mr. and Mrs. J. E. Parish (née Mary Day)—the gift of a daughter.

EDS. {C. P. B. / S. V. S.}

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *November 21st, 1925.* *Number 975*

PASSIM

AT 11 o'clock on Armistice Day a short ceremony took place at the Memorial Arch. It was fully attended by a miscellaneous assembly of Staff, students, nurses and hospital servants, while from behind the railings it was observed by inhabitants of the Borough and by the collection of obstreperous children which always haunts Maze Pond and the precincts of the Hospital.

The majority of those present probably knew none of the Guy's men whose names are inscribed upon the Arch before which they stood. Yet the moment was not the less solemn for this. Shortly before 11, Dr. Fawcett hung a wreath upon the Arch and read a short address which was not easily heard by those not near him by reason of the noises of the trains at London Bridge, and of the traffic in front of the station. Then after a short pause eleven o'clock struck from a multitude of clocks far and near, and guns were fired in the distance. The "Last Post" was sounded by two buglers, bringing back to all who had been in the war a throng of half-forgotten memories and feelings.

Like magic the noise of traffic and of trains ceased, and over the Hospital and the dense crowd before the Arch the Silence reigned.

The buglers then played "The Reveille" and the crowd dispersed to their various destinations, and the routine of Wednesday morning in Wards and Out-Patients was resumed.

▭

ON Tuesday, November 10th, at 4.30 p.m., a meeting of the Students' Club was called in the Physiological Theatre to discuss catering in the College. The following new members were elected to the Catering Sub-Committee: Messrs. R. Jarman, E. J. Pye-Smith, and E. H. Roche. The following resolutions were passed: The new sub-committee are to meet every fortnight to consider complaints as to the food service in College. The chief of the whole A.B.C. organisation in London is to be approached and informed that the service in College does not at present meet with satisfaction. Bodies possessing reserves of funds in the Hospital are to be requested to advance sufficient capital to the Catering Committee to enable them, in the event of necessity, to manage the feeding arrangements in the College themselves.

▭

ELSEWHERE in this number we publish the first of a series of three articles by Dr. J. J. Conybeare upon the Medical Curriculum and Hospital Administration in America. Dr. Conybeare spent six months in America between October, 1924, and May, 1925, in the course of which he visited most of the leading medical schools.

▭

IT is with the greatest regret that we have to announce that next month Mr. S. H. Croucher will retire from his post of Clerk to the Dean and Accountant to the Medical and Dental Schools and College. He has filled this post for twenty-seven years, having succeeded the late Mr. C. H. Wells on July 1st, 1895, and has worked at Guy's for thirty-four years in all.

When Mr. Croucher first came to Guy's it was part of his duties to address and despatch a number of each issue of the GAZETTE to every subscriber, and this task did not at that time occupy more than half a day at the most.

Such a task would now occupy quite three or four times as long if it had to be done. The expansion and increase of circulation of the GAZETTE is only one of the many great changes that Mr. Croucher has witnessed at Guy's. When he first came there was no Dental Department or Dental School, no Bacteriological Department, no College and no Clubs' Union.

Nobody can have failed to have been impressed by the ready manner in which Mr. Croucher would always supply one with just the information one required about anything that it was necessary to go to the Office and enquire about. All the particulars about appointments, examinations, fees, or anything else, always seemed to be at his finger-tips!

The posts which he has held for so long at Guy's have always meant very hard work. However, it does not seem that this work alone provided anything like a sufficient outlet for his energies, for, when quite a young man, he threw himself heart and soul into the public life of Penge, the district in which he has resided for many years. He has been a member of the Penge Council since 1913, and in 1922 was unanimously elected Chairman of this body. His connection with this body commenced as early as in 1903, when he was at work on the Education Committee. He has especially devoted his energies while on the Council to the problems of Public Health, Housing, Education and Infant Welfare. We understand that Mr. Croucher now has every intention of devoting his time and energies solely to these interests and we feel sure that the very many old Guy's men who know him and all present Guy's men join with us in wishing him very many years of good health and happiness in which to continue to carry out his many good works.

We would like to offer our heartiest congratulations and best wishes to Mr. J. H. E. Winston who has been appointed successor to to Mr. Croucher.

THE Annual Guy's Hospital Residents' Ball was held at Claridge's on Friday, October 30th. Many of those who attended are quite convinced that this was the best Guy's Ball they have ever been to. We cannot speak with the benefit of so great an experience as most of those people, but we can say that it is very difficult to believe that this function has ever been such a very great success as it was this year.

The Residents and the Dance Committee are to be heartily congratulated on the great success of this most important social function.

Pass List.

Conjoint Board.

October, 1925.

Final Examination.

Medicine.

*D. W. C. Northfield.	*J. A. A. Mekelburg.
*J. K. G. Way.	*T. St. J. H. Silvester.
*R. E. Smith.	*R. C. May.
*F. M. Newnham.	*T. I. Williams.
*H. L. Peake.	*R. G. Nethery.
*I. A. Jackson.	*A. Elliott.
*T. H. Pratt.	*C. F. Parry.
*J. D. Rear.	*D. M. Lang.
J. H. Chitty.	*D. W. E. Lloyd.
H. L. Belcher.	*J. G. Goodman.
P. J. Gonsalves.	W. D. Sheldrake.
*W. S. Grove.	*W. H. Dowell.

Surgery.

*D. W. C. Northfield.	E. S. Rudaizky.
*J. D. Rear.	A. R. Marsh.
J. H. Chitty.	*J. W. Shackle.
H. L. Belcher.	*E. Sorabjee.
D. A. Newberry.	J. Wiseman.
*D. M. Lang.	M. Taylor.
T. R. Hill.	A. H. Musgrove.
J. W. Schabort.	C. E. Allen.
D. C. M. Ettles.	W. Mayne.

Midwifery.

*D. W. C. Northfield.	M. T. Aung.
P. J. Gonsalves.	E. S. Rudaizky.
A. R. Cox.	A. R. Marsh.
R. Schofield.	E. H. Roche.
*W. S. Grove.	L. S. Williams.
T. R. Hill.	W. G. Porter.
A. T. W. Hall.	W. Leslie.
A. H. B. Heesom.	S. D. H. D. Wallis.
C. W. Marshall.	T. C. Pain.
J. W. Schabort.	C. A. N. Hicks.
D. C. M. Ettles.	V. C. Benson.
M. L. Hutchinson.	*P. F. S. Court.
J. C. Fast.	E. Robinson.

*Have now qualified.

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M.B.

November, 1925.

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November, 1925.

A. C. M. Coxon.

Notes on Hospital Administration in the United States.

IN Great Britain hospitals tend to fall into one of three classes, the general or special hospital supported by endowment and voluntary subscriptions, the hospital supported by the rates primarily for the sick poor of the neighbourhood, and the hospital or nursing home run by private enterprise for paying patients as a commercial venture. In America all these three types are to be found, but the differentiation is much less marked; thus for example the nursing home type of private hospital is relatively uncommon, its place being taken by private wards or rooms in endowed hospitals; the city hospital, or as it would be called in England the Poor Law Infirmary, is often organised on similar lines to the endowed voluntary hospital as regards equipment, teaching and staff. Even the private hospital, which is intended solely for paying patients is, as a rule, controlled by a Board of Governors, who maintain it without any idea of making a profit. In addition there is a class of hospital which is unrepresented in Great Britain, the hospital which is primarily for research and which takes in patients, not because they are sick, but because their maladies are those which the research institute attached to the hospital is studying at the moment. The best example of this type of establishment is the Rockefeller Hospital in New York, which is intended simply to house the clinical material for research workers in the hospital. Similarly there are also a number of University Hospitals, which are maintained by a University with the primary object of supplying its medical students with suitable clinical material.

Practically every endowed or voluntary hospital in America maintains a high proportion of private beds reserved for paying patients. This applies not only to the larger teaching hospitals, such as the Johns Hopkins at Baltimore, or the Massachusett's General at Boston, but also to the smaller non-teaching hospitals both in the large cities and in smaller towns. As an example the Johns Hopkins Hospital has approximately 200 private beds out of a total of about 650 beds. As a rule the private patients are housed in a separate building with a separate house staff, but use the ordinary hospital facilities as regards radiography, laboratories for clinical investigations, etc. The rates charged for residence in the private rooms are high, and vary from five to twenty dollars a day according to the size of room. Payments on a definite scale are made to the hospital for X-ray, chemical, bacteriological or other investigations. The hospital expects the private patients fees not only to cover the actual expenses of their upkeep but to go a considerable way towards defraying the overhead charges of the hospital as a whole. In addition to payments made by private patients in the paying wards, the patients in the general wards are required to pay a small weekly sum provided they can afford to do so. Thus, at the Johns Hopkins Hospital in 1923, close on 900,000 dollars were received in fees from patients. which compares very favourably with the total hospital expenses which amounted to 1,100,000 dollars. Naturally the greater portion of the sum received represents the charges on the paying patients in the private wards, as about 50 per cent. of patients in the general wards are too poor to make any contribution.

In the City Hospitals there are, as a rule, no paying patients, but a charge for maintenance is levied when the patient can afford it, and the deficit is borne by local taxation. Many of the smaller endowed hospitals consist largely of private beds, the fees from which cover the whole cost of hospital upkeep.

The whole system is of comparatively recent origin, and would be impossible except in a community, where the well-to-do classes have been educated up to understand that they will receive better treatment in hospital than in their own homes or in private nursing home establishments. The advantages both to patient and doctor are obvious. The patient has the benefit of adequate hospital nursing, services of resident physicians, and ready facilities for any investigation or treatment that may be necessary. For the doctor it means the aggregation of his patients in one institution, instead of their being scattered throughout the city in nursing homes or their own houses. Moreover. the privilege of being allowed to take private patients into the paying wards of the hospital is an indirect financial advantage to the physicians and surgeons on the honorary visiting staff.

Clinical Staff.

Perhaps the feature that strikes a British visitor most is the very large number of medical men who are on the clinical staff of hospitals in America. For example, the Johns Hopkins Hospital has nearly 200 clinicians, who work either in the wards or the various Out-Patient Clinics. Of these a certain number are employed as full time teachers by the Medical School, but the greater number consist of medical men in practice in Baltimore. This number is out of all proportion to the total clinical staff of an English hospital of similar size. In addition to this large visiting staff the number of resident and house-officers is very high. At the Johns Hopkins about 75 qualified men live in the hospital, and at smaller hospitals the house staff is proportionately large. Thus, at the Union Memorial Hospital, in Baltimore, with about 150 beds, there are 22 residents and house officers.

Many of the visiting staff in American hospitals work only in the Out-Patient Department, and may attend the hospital for only a few hours a week. The charge of in-patients is largely in the hands of the heads of departments and a few of their associates. One of the reasons for the very large number of visiting staff is that the hospital Out-Patient Departments have a great number of special clinics. Thus, besides a general medical out-patient clinic, most teaching hospitals maintain special Out-patient departments which act as sub-departments of the medical clinic, for diabetes, asthma, dermatology, syphilis, neurology, psychiatry, gastro-intestinal disease, tuberculosis, cardiology, pediatrics, and obesity.

On the surgical side, similarly, there are special clinics for otology, laryngology, ophthalmology, proctology, orthopædics, and urology. Each of such special clinics employs anything up to a dozen physicians or surgeons. Many of the junior out-patient staff do what is more or less general practice in the city. In fact, it is not really difficult for any medical man in practice in a town to get a minor post on the staff of one of the local hospitals.

The system has the advantage that large numbers of patients can be dealt with thoroughly, and the average time devoted to each individual case is far longer than in the out-patient department of most British hospitals. Moreover, the attendance of a number of assistants enables the head of the clinic to devote ample time to teaching and demonstration of specially interesting cases.

House Officers.

As has already been stated the number of resident medical officers is far higher in America than in England. In most hospitals there is an average of one house officer to every ten patients. The resident staff usually consists of a resident physician and surgeon, a number of assistant residents, and a large number of recently qualified men known as house-officers or interns. The residents and assistant residents have often been qualified for several years. The interns as a rule receive no pay, but are given free board and lodging, while the higher grades get a small salary.

One noticeable feature is the ease with which it is possible for men to move from one hospital to another. Thus, at the Johns Hopkins the resident physician is a graduate of Toronto, and at the Presbyterian Hospital in New York the post is held by a Johns Hopkins graduate. The appointments to internships in teaching hospitals are by no means confined to their own students. These appointments are directly in the hands of the head of the department concerned and in most of the teaching hospitals at least 10 per cent. of interns are graduates of other schools. This interchange between hospitals applies equally to the higher appointments on the hospital staff.

Many different methods are employed for calling the house officers and residents. Perhaps the most popular is a system of "loud speakers" which are operated from a central telephone exchange. If it is desired to speak to any particular resident a message is telephoned to the central exchange, where the operator gives a call which is broadcasted on all the "loud speakers" throughout the hospital. The man who is wanted then simply goes to the nearest telephone, of which there are very large numbers, and the exchange connects him to where he is wanted. Another plan is a system of coloured lights or illuminated numbers. Each resident has a number and if he sees it light up he simply goes to the nearest telephone. Perhaps the most satisfactory calling system is the telegraph ticker, which is installed at the Mayo Clinic. Each man has his own call consisting of combinations of long and short ticks, and when he hears it he goes to the nearest telephone and asks to

be connected. These systems enable any of the house staff to be found instantly and save a great deal of time and inconvenience. In particular the ticker system is cheap and infinitely less irritating than the loud speaker.

Students and the Hospital.

With the very large numbers of house officers it is hardly to be expected that students would play any considerable part in the hospital routine. Actually apart from the presence of the interns any attempt to systematise the work of ward clerks and dressers in relation to the hospital is doomed to failure, owing to the fact that for four months during the summer all students are on vacation. Many British hospitals rely to a considerable extent on the students for assistance in the Out-patient Departments and in the wards. The American medical student, on the other hand, has no responsibilities towards his hospital, except in some cases the taking of clinical notes of in-patients. Even these, however, are mainly kept by the intern rather than the student. Although the student is expected to carry out the simpler clinical investigations on his patients, the intern is responsible for checking his findings, and in fact during the summer vacation does the whole of the work himself.

Case Records.

The "unit-history" system is being gradually introduced in America, and in certain hospitals has been employed for many years. Under this system all the notes relating to any individual patient are kept together, whether they be out-patient clinic records, ward records, or notes on the results of treatment from the follow-up department. The result is that the whole of the patient's medical history often over a number of years is concentrated in one folder; frequently the notes are type written. Each case is given a serial number and reference is made easy by a card index of names and diagnoses. The advantages of the system are obvious, but unfortunately it makes a greater demand on space and clerical aid than can be afforded in most hospitals outside America. At the Presbyterian Hospital in New York, where there are only some 200 beds, no less than six clerks and typists are employed in the Record Room.

In hospitals where the "unit system" is not carried out the reports of the various departments are usually bound separately in volumes of convenient size, and these are stored in a record room where they are kept clean and dusted, and are readily available. At the Johns Hopkins Hospital there are separate record rooms for the Phipps Psychiatric Clinic and the Harriet Lane Home for Children, where records on the "unit system" are maintained. The rest of the hospital reports are bound and stored in the main hospital history room. America seems to have realised the disadvantage of enormously heavy volumes of records, and at the Johns Hopkins only fifty reports are bound together in each volume.

Laboratories.

Most of the teaching hospitals in America maintain three types of laboratory, which are organised quite separately. In the first place there are small clinical laboratories adjacent to each ward or group of wards, which are for the use of students and house officers. It is in these that all the simpler investigations, such as blood counts and urine examinations are carried out. Secondly, there are laboratories for the routine chemical and serological investigations, which are under the charge of whole time members of the hospital staff, assisted by a number of technicians. The latter are trained to carry out all the ordinary blood chemistry, Wassermann and other serological reactions under the general supervision of the head of the laboratory, whose time is largely free for research. Finally, there are special laboratories devoted solely to research, where no routine hospital work is performed. Here also the services of a number of technicians are available, to avoid the imposition of unnecessary technical work on the investigators. Often, too, there are special workshops for the manufacture of apparatus and glassware.

In addition, many hospitals maintain special cardiographic and metabolism laboratories, where the routine electro-cardiogram and basal metabolism work is carried on by technicians under the supervision of members of the hospital staff. The employment of technicians for all routine work is universal throughout the country and reaches its extreme at the Mayo Clinic, where the Metabolism Laboratory has a staff of about 30 technicians. The degree of accuracy attained by highly trained technicians is very great and the system markedly increases the output of research work. On the other hand it perhaps produces a tendency to in-

crease unnecessarily the amount of clinical investigation work done on individual patients. This is especially true of examination into the blood chemistry.

The radiographic departments may be mentioned in this connection. Here, again, there is a tendency to do more work than is really necessary from the clinical standpoint; for example, at one of the Boston hospitals over 80 per cent. of the in-patients have an X-ray examination. Naturally, under such conditions, the percentage of negative findings is high. At the Johns Hopkins Gastro-Intestinal Out-Patient Clinic X-ray examination is almost a routine procedure.

As might be expected from the above facts, the X-ray departments are relatively larger than in English hospitals. On the whole their equipment is more modern and tends to keep pace with each improvement in X-ray technique. The fluoroscopic work is done by the hospital radiographer and his assistants, but practically all the taking of plates and films is in the hands of technicians. The expenses of the department, including salaries, is largely if not entirely, defrayed by the fees from paying patients. In some cases, for instance, at Toronto, the department even makes a considerable profit, which is paid over to the hospital funds.

As ragards technical methods, stereoscopic plates are used much more generally in examinations of the lungs than in England. With barium meal investigations, the number of plates taken varies widely in different hospitals according to the views of the individual radiographer on the value of plate work as compared with fluoroscopic examinations.

Dietetics.

All American hospitals of any size have a staff of trained dieticians, who control not only the general kitchens for the supply of the wards and hospital residents, but also the special diet kitchens for diabetics and diseases of metabolism. All diabetics draw their diets from these special kitchens, where the food is accurately weighed out and cooked in accordance with the special diet ordered by the physician. Diabetic diets are ordered in terms of grammes of protein, carbohydrate, and fat, and the arrangement of the food prescription in a palatable and variable form is left to the dietician. The latter also frequently holds classes for the instruction of diabetic patients and their relatives in cooking.

The number of diabetics in America is very great and at many hospitals special courses of lectures are given to the patients and their relatives by members of the staff and the hospital dieticians. At the Mayo Clinic there is a lecture every day and at Boston four times a week; by this means an attempt is made to make the patient realise the importance of diet. These lectures are also supplemented by practical classes in cooking, accurate weighing of food, urine examination, and the technique of insulin injection. Complete sets of scales, hypodermic outfits, and urine testing apparatus are sold to patients from the hospital stores at cost price. The results attained by this educational propaganda are surprisingly good.

Social Service Department.

The Social Service Department plays a prominent part both in the Out-Patient Department and in the wards. The staff is usually partly salaried and partly voluntary. At the Johns Hopkins there are 22 full time workers and about 40 volunteer assistants. The work of the Department falls into two main divisions. Firstly, in endeavours to act as a link between the hospital and various outside charitable organisations. Secondly, the Social Service offers personal service to patients who require it. The workers attached to each department attempt to keep in personal touch with the patients, and to help them in such matters as finding suitable employment, and explaining any instructions that may be given by the physician. They also attempt to insure that patients, who are undergoing out-patient treatment, should attend regularly. They also are able to help patients from outside the city in obtaining suitable lodgings while staying in Baltimore. In the case of children the social workers often visit the home and report on the conditions. In addition the department arranges for the supply of orthopædic and other appliances.

To a certain extent the Social Service Department is able to act as a "follow-up" department. The department in conjunction with the physician arranges for patients to come up to be re-examined, or keeps in touch with them in other ways.

The keynote of American hospital administration to the European observers is efficiency regardless of expense, and this expense is really only made possible by the fact that for capital expenditure it is relatively easy to obtain endowments, while current expenses are largely defrayed by fees from the patients themselves.

Everywhere it is easy to see features which in Great Britain would be regarded as luxuries. Thus, most of the lifts are operated by attendants; throughout a hospital there are telephones which connect as extension lines with the outside telephone system; the supply of technicians in the laboratories is far above that in institutions of similar size in England; there is a profusion of clerks, stenographers, and typists employed in all departments, particularly in connection with the hospital record keeping.

On the other hand this liberal expenditure has great advantages. In many well known English hospitals it is well nigh impossible to obtain an electro-cardiogram, and basal metabolism is practically unknown as a clinical method. In most American hospitals of similar status the physician need only fill up a request form to get such an investigation carried out. The resources of the social service or the dietician are at his service on demand. If he wishes to make a note about a patient he has only to summon a stenographer or speak into a dictaphone.

"The wind bloweth where it listeth . . ."

THE only surviving officer of the battalion lay wrapped in blankets on the floor of his tent, trying to sleep. Muffling the desultory racket of artillery fire, a fine rain pattered in gusts upon the canvas a foot away from his head, and trickled fitfully off the flap into the shallow ditch dug round his circumference. The air of the tent was pervaded by moisture. It came in through the ventilating holes at the top, it exuded out of the sodden earth and was evolved by the canvas, through whose soaking translucency sudden pink gun flashes, and the more sustained blueness of distant Verrey lights diffusely penetrated.

Physically worn out, his feet swollen and sore, his muscles and joints aching, his uniform and underclothes saturated with sweat, the figure on the floor longed for rest. Now and then he shivered with cold, and drew his arms and legs up closer into the warmth of his curled-up body.

Uncontrollably, kaleidoscopically, the impressions of that day's battle surged through his mind every time he closed his eyes—glimpses of howitzers belching noise and smoke, of the earth-sprays of exploding shells and the dull percussion they had transmitted to his feet, of labyrinths of trenches with an elusive khaki figure always disappearing round a bend in front, of zig-zagging lines of red and green on an earth-smudged trench map, of columns of infantry moving like snakes down a valley; the sense of the sudden sharp clack of a bullet near his head, making him twitch as he lay; the twanging explosion of Mills bombs he had thrown over a barricaded trench; the stunning concussion of a shell bursting close, the dizziness and singing of ears following; the sense of his gas helmet bumping on his chest as he plunged through wire and shell-holes, of his tin-hat sidling insecurely upon his head; the sudden recognition almost as he was upon them of the domed helmets of the occupants of the German trench, shooting like maniacs; the sudden abandon of their uplifted hands as they stood back in their field grey uniforms; the butchery which followed; the terror-struck eyes of the N.C.O. confronting him, dilated beseechingly between frantically raised arms; and the way the man's face had crumpled as the massive ·450 bullet from his Colt smashed through his skull. . . He shut off the train of thought. Convulsively he turned on to his other side.

Inside of him he had a sense of things suddenly stopping, of his body becoming as a void which, not unpleasantly, would fill with a tingling sensation that began in his chest and radiated out into his limbs. He lay with his head on his gas helmet and haversack, and listened to his heart beating. The pulsations in his ear seemed strangely irregular. BEAT . . . beat, beat, beat . . beat, beat . . beat . . BEAT. Curious! He had never noticed that before. He must be nearing the end of his tether. He certainly felt like it. Quickly he thought of something else. From somewhere far away came a coughing noise, then from away up in the sky, a distant wailing sound punctuated by sharp little crepitations, long sustained,—then slowly diminuendo, now inaudible. A shell from one of their long-range guns. He pictured it cleaving the low-hanging rain

clouds, perhaps riding above them on its high mission of destruction. He listened for the noise of its explosion, but could not hear it. Nothing but the bleak sighing of the wind, and the gusty patter of rain on the canvas He thought of the rain falling on the undulating plains of Northern France, over warm, comfortable cottages in the back areas, over the wooded country-side undesecrated by war, over the Staffs and Headquarters of both belligerents, over the miserable wretches shivering in the ditches, dug a few hours before, and over the thousands of mutilated figures lying stark and inanimate on the battered soil. A great Unifier was the rain! It respected nobody. It made no distinction between man and man, between man and beast, between beast and tree, between living and non-living. From out of the womb of the sky he saw it falling through a brooding mantle of russet smoke on to the roofs of cities; he saw it pattering on the still leaves of forests, dripping on to the coppice, soaking into the rich brown humus, giving forth into the night a clean smell; he saw it sweeping over the tumultuous bosom of the sea, roughening its surface, soothing its foam-flecked waves, their white crests just visible in the opaque darkness; he saw it beating on the hard faces of mountains, trickling down the shining sides of cliffs, and over smooth rounded boulders; he saw it foaming and raging down steep ravines. The sound of the rain on roofs, on trees, on the sea, the monotonous rushing of angry waters over rocks conspired with the patter on the canvas to form in his ears a mighty Symphony of Nature—a nature impersonal and indifferent to man, yet embracing him, a nature from which at times he had sought to escape, but in which now, he desired to lose himself. For a few seconds he had a sense of its immensity, of its utter indifference to him, and yet of its nearness and poignant significance. Then the feeling went, and he looked out on to a wilderness of dead.

Dead! In their hecatombs they lay mangled and blasted, their heads lolling over, their faces like ashen masks. In every dimension of space he saw them, in every contorted posture, in every stage of decomposition. . . . Again he shut down his mind and threw himself on to his other side.

How utterly exhausted he felt in body and mind and how he longed for rest! Forgetfulness! Oblivion! The dead were lucky, they at any rate possessed it. "Peace, be still!" Why hadn't he the power to make his mind obey him as the waters of the sea of Galilee had once obeyed—or so he had believed? Why should he have been picked out amongst all the others to come out unscathed? He thought of the officers with whom he had lived so intimately, of the men whose letters he had censored, whose wives and mothers he felt he almost knew.

In the next few days he would have to write to them brief, stiff little letters that would irrupt into their world and perhaps shatter their lives. Where were their loved ones now? Sodden, exsanguinated, gnawed by the rats, they lay without in the beating rain, the germs of corruption at work. There they lay, while the spirits of those at home were reaching out to them and desperately praying for their safety. He felt somehow unworthy. Why was he alive? Was the whole of life, the whole war, some colossal deception? Was he the only living being on the stage of a solipsistic world, where, as sole actor, he dwelt invulnerable and secure? Was all the rest illusion, or some huge pantomine for his edification? A very edifying spectacle, the war! A vision came to him of a trench he had crossed that evening, the occupants of which had been dismembered by Mills bombs. Like giant earth-worms, their viscera were strewn in knotted festoons through a litter of earth and smashed revetments. And this was the thing he had been trying to do for the last two years, and would continue to do until like the others he was killed or the interminable war ended. This, in fact, was what one half of the world was actively, consciously and deliberately striving to do to the other half—to inflict as much destruction and injury as was within their power, to mutilate, to kill, to cause to suffer. The actual physical horror of the war paled into insignificance before the unrealisable horror of this consecrated human intention. He listened to the roll of drum fire up and down the line, and thought of that trench. "That is what one half of the world is *trying* to do to the other!" The loathsomeness of the thought was at that moment such that he felt his sanity threatened by it.

Again he rolled over, and his thoughts went off at another tangent. Could he stand it much longer? Another day like this, before he had time to recuperate, and he would crack up. How much simpler to get killed! If you were dead, now-a-days, you were in good com-

pany. He thought of his school friends who were dead, of the fellow officers who, in the last two years had come into his life and passed out of it like ephemeral moths. Dead! The word had a different meaning, somehow, for these from what it had for people in civil life. These merely seemed to have gone away for a time, and, though identified with a phase of the past, would return again. An illusion created by their youth and vigour, presumably! And then, by slow degrees, more chaotically, more fragmentarily, but with undiminished obsessiveness, shell holes, trenches, wire, explosions, wounded men and all the appurtenances of the day before, welded themselves into a surging whirlpool of sensory impression, and he sank into a fitful sleep .

. . . .

For a time, like a cork in a choppy sea, he was heaved to and fro on a maelstrom of visual imagery. Then gradually the storm subsided and around him things took shape.

Poised as it were in space, he found himself sitting upon a narrow shelf in the middle of a black façade of rock. Dark and overshadowing, the cliff face towered like some impending Fate over his head, its sinister outline clearly defined against a vault of sky, strewn with shimmering stars. Insecurely he was suspended over a gaping chasm of opaque blackness, round which on all sides there loomed upwards, sheer and menacing, pinnacles and bastions of jagged rock. In their grim majesty they encircled him and the pit he overlooked, like the sentinels of some huge arena of Nature wherein all the forces of destruction, deep in the turbulent bosom of the world, were held imprisoned.

Above him now, the stars were paling, and in the sky that soft opalescence, wherein the infinitudes of Space are revealed in the fleeting interfusion of Night and Day, was announcing the approach of Dawn. Silvery and cold, a delicate light trickled down the crevices and cracks of the steep rock-face, and stole towards him round its projecting crags and smoke-stained buttresses.

From his little ledge he gazed into the yawning abyss. At regular intervals puffs of thick yellow smoke were regurgitated out of the darkness, rose towards him in slow-moving clouds, and passed him by to lose themselves in the thin air above. And out of the depths came a hoarse, deep-throated mutter, that broke now and then into sudden rending, cracking sounds that reverberated and re-echoed upwards between the frowning walls. Then slowly the eructations of smoke changed from intermittence to a continuous belching discharge, that enveloped and stifled him in sulphurous fumes ; and the noise turned into a sustained and shattering din, rhythmically pulsating like breakers upon a gravelly shore.

He closed his eyes, and tried not to breathe. When he opened them again he caught a glimpse below him of flashes of fire, little spurts of pink flame, that shot like tongues into the murky veil of smoke. Then suddenly the smoke lifted. Heaving and seething, there extended below him a lake of molten metal, boiling like lava in a volcano, into which colossal bubbles of white-hot iron and lead were rising from below. They burst with deafening reports, discharging smoke and burning missiles into the air, and scarring the surface with crumbling fuming pits. As the turmoil rose higher he saw that pieces of equipment and tags of uniform, shells, rifles, pickets, grenades and all the multitudinous flotsam of war were being cast up and re-engulfed.

Then, opposite, the cliff-face fell away and yielded to an expanse of featureless prairie, through which towards him, an endless column of helmeted khaki-clad figures were advancing. Their heads were bent and their eyes rivetted on the ground. In their faces was the fixity of men who steadfastly refuse to see what they know to lie before them. They approached the pit till they were on the brink. For a moment they paused, and then, like dummy figures, fell, tumbling, till they hit the molten surface. Their bodies sank, and then reappeared, their clothes burning, their faces contorted with the realisation of a fate so horrible, that though ever-present, it did not sustain thought. Their struggles became less violent and a film passed over their sight. Then their forms disintegrated. And all the time with eyes cast down, resolutely blind to all before them, the men behind came on.

The turmoil lifted itself upwards to claim him, like a rising tide, and became full of fragments of human bodies. By a superhuman exercise of will he tried to keep it down, and for a moment he seemed to succeed. The strain became unbearable, and as if for help he looked upwards. The sky was filled, not with stars, but with a huge phosphorescent face that diabolically mocked him. As he gazed at it,

he felt his reason slipping away. He dropped his eyes and saw that in his moment of forgetfulness the tide had risen almost upon him, and was now spitting within inches of his feet. Then something snapped in his head. He stood erect, poised like a diver for several moments . . and then plunged headlong.

He felt himself falling, falling for what seemed an eternity. Then he opened his eyes, —and behold!

. . . . . .

Silhouetted against a sky crimson with the light of Dawn—a black figure, nailed to a cross; on its face, an ineffable, a serene joy. In the crystalline air, in the warm soil, in the streaming splendours that filled the sky, in the figure before him, were Calm and Fulfilment. Peace!

"My peace I leave with you"—like music the words floated into his mind—"not as the world giveth, give I unto you."

Unfinished—unfinished—the scene was melting. From out of the Dawn came a flock of great birds with white wings that flew round the figure. A shaft of light came from the East, and touched their breasts with radiant silver.

Unfinished — unfinished — their forms were vanishing, were turning into little shreds of exquisite melody that filled the air around him as with wings.

Unfinished—symphonically, the word was gestated in his mind, and he awoke with it upon his lips.

He got out of his blankets, pulled open the flaps of his tent, and stepped out into the night. The drum-fire had subsided. The rain had ceased, and a full moon had arisen. The earth was fresh with rain, and the grey landscape was bathed in soft light. An immense, brooding Calm possessed his mind.

He felt his pulse, and his heart was beating slowly and steadily. He thought of his dream, its beginning and its ending, his head still throbbing with tags and disconnected notes of music.

—And he wondered greatly, for he was an unbeliever.

C. P. B.

Some Practical Hints on the Treatment of Eye Disease.

The following has been sent to us by an Old Guy's Man.

NOTHING teaches like personal experience, and I give the following few tips which I have learnt as a patient.

For occular pain no remedy equals the leech. It should be applied to the temple very near the external angular process. In bandaging a pad on a painful eye, see that the pad is thick and large enough so that pressure is exerted on the orbital margin and not upon the eye-ball itself.

Duboisine is an excellent substitute for atropine when that causes irritation. Lamellæ are easily introduced with a camel's hair brush. In using strong mydriatic drops care must be taken that none passes down the nasal duct as general toxic symptoms readily occur.

In using an eye-bath, see that it fits accurately, that is, that it is of such a size as can be held in the eye like a monocle. Painful pressure on the eye-ball is thus avoided the lower lid is everted. It should be about half-filled with the lotion and, if the head is jerked smartly backwards and forwards, the lotion can be felt "swishing" against the eye-ball most satisfactorily. Coloured eye-baths are very useful when photophobia is present. If both eyes are affected two eye-baths should be used of different colours to avoid cross-infection, using the green bath for the "starboard" eye. Both eyes can easily be douched simultaneously. Pain after douching is much relieved by bathing the whole upper face with very warm water.

Ointment is best introduced into the conjunctival sac by means of a little glass rod tapering at each end, one of these being marked by a nick, again to avoid cross infection. The lower lid is well everted, the glass rod placed horizontally in the sac, the eye tightly closed and the rod drawn carefully outwards leaving the ointment in the sac.

"BARTIMAEUS."

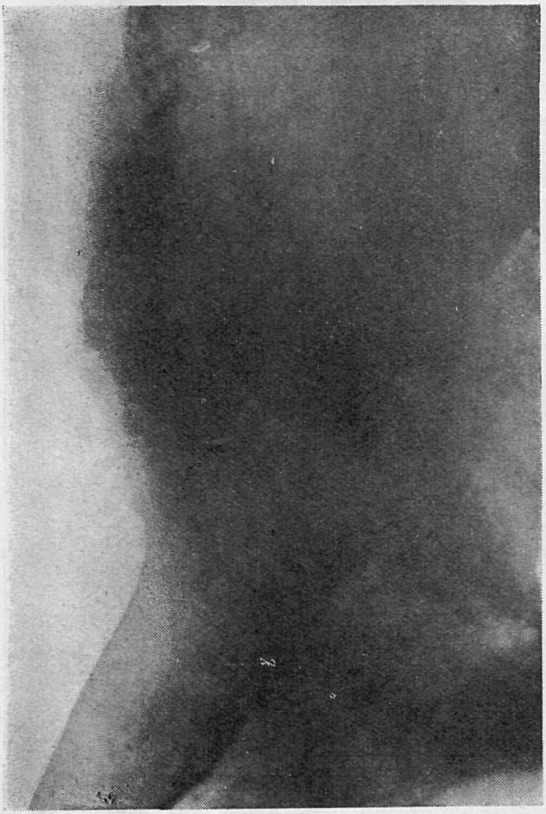
Interesting Cases.

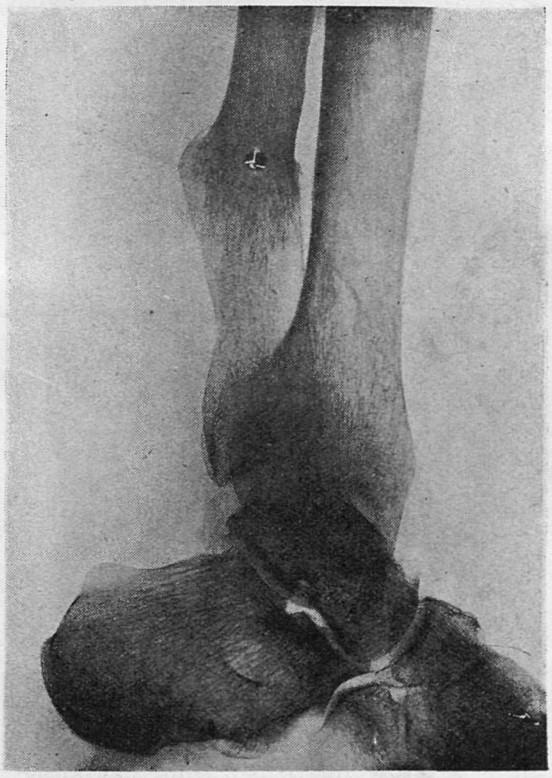
No. 4.—A Case of Familial Osteo-Chondromata.

F. W., aged 47; occupation, clerk. At the age of three years small swellings appeared on the outer sides of the patient's ankles and knees. Between the ages of 7 and 18 further swellings appeared in the regions of both wrists, both elbows, and the upper end of the right humerus; also from the seventh left costal cartilage and the left ala of the sacrum.

In 1918, when the patient was 40 years old, a swelling appeared in the right groin which grew at a much greater rate than the others, and by 1924 had attained the size of a football.

Owing to the size and position of the tumour, which apparently grew from the body of the os pubis and from the pubic rami, movements at the right hip joint were greatly limited and the thigh was fixed in a position of ab-

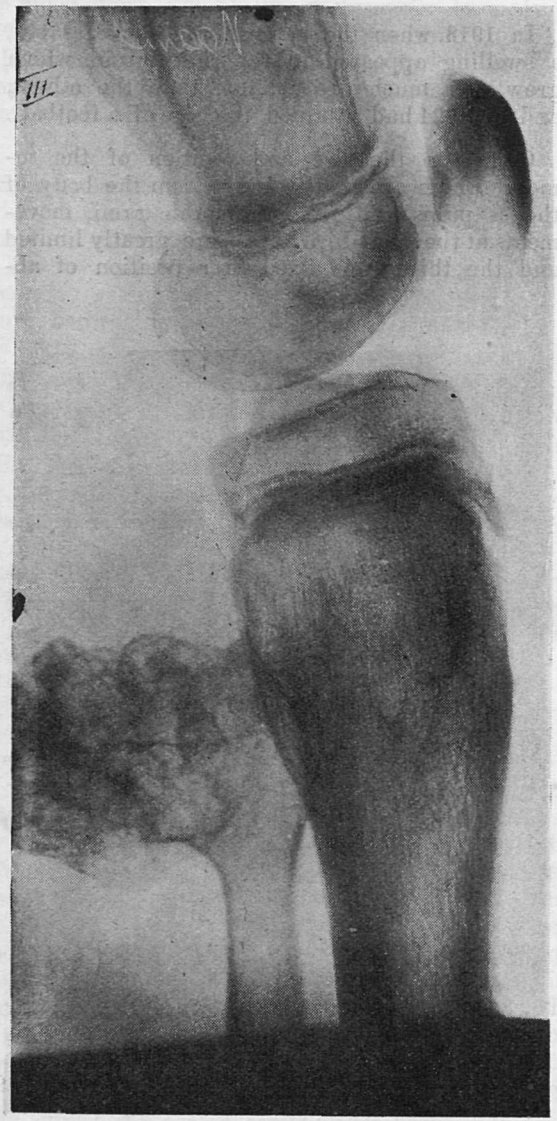




These tumours were hard and quite painless and caused no limitation of movement except for one at the upper end of the left ulna, which prevented full extension at the elbow-joint. They increased progressively but very slowly in size, and at the time of his death the biggest was little larger than a hen's egg.

duction and external rotation. The penis and scrotum were displaced towards the left, but there was no interference with micturition. Early in 1924 the patient began to suffer from neuralgic pain down the inner side of the right thigh, presumably due to pressure of the tumour on the obturator nerve.

He was first admitted to Guy's, October, 1924, for a course of deep X-ray therapy and was discharged a week later. He was re-admitted at the end of November, as a rapidly-growing

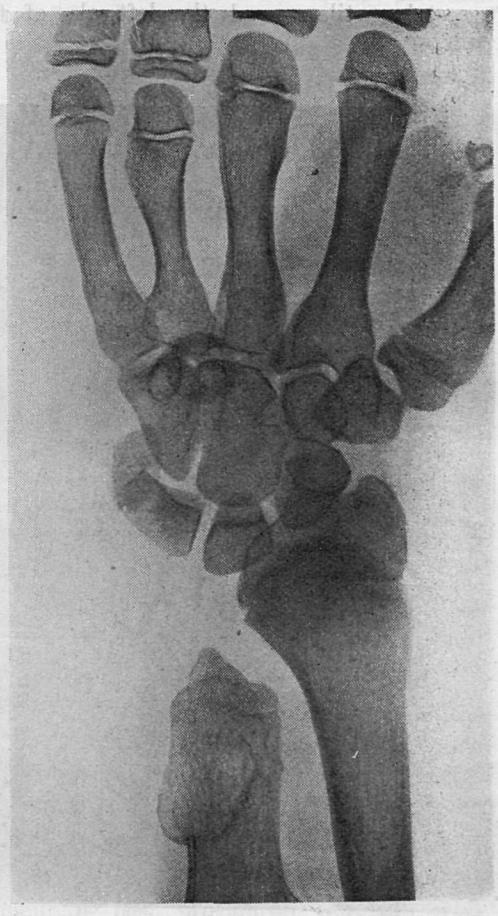


tumour had developed in the right buttock, which gave him great pain when he sat down. Mr. Rowlands operated and removed a large cartilaginous tumour from the right tuber ischii. The patient was discharged eleven days later, able to sit down without discomfort. The clinical microscopist's report on the tumour was "a cellular chondroma."

Re-admitted in September, 1925.

The tumour in the right groin had continued to grow in the last nine months and on admission was about eleven inches in diameter. The patient's general condition was poor, and he got very little sleep because of the pain in the thigh.

Mr. Redding's report on an X-ray of the tumour was:—"Tumour is so dense that a satisfactory radiogram cannot be obtained. Appearances suggest an ossifying chondroma."



Mr. Rowlands operated on September 6th. A large curved incision was made over the tumour and several large veins were divided. No sign of the femoral vessels could be seen. Large masses of tumour amounting to several pounds in weight, and in appearance resembling soft cancellous bone were gouged away. As there was still no sign of the femoral ves-

sels and as the fixed abduction could not be overcome, the wound was closed without drainage.

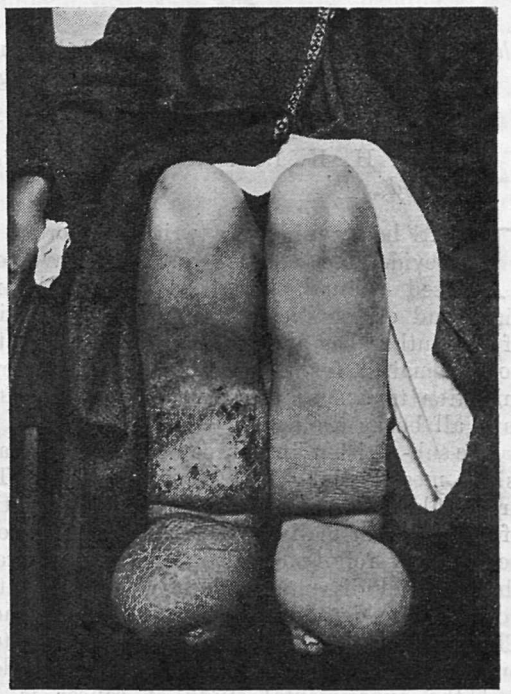
The appearance of the growth at operation was remarkable for its bloodlessness. The pieces removed were of a yellowish white colour and there was practically no oozing of blood from the cut surface of the growth.

The following day the patient was comfortable, but when the dressing was done it was found that the cavity left by the removal of part of the growth had filled with blood, and the external appearance was much as it had been before the operation.

A week later the skin over the hæmatoma broke down and there was a discharge of foul-smelling altered blood and necrotic growth. The patient's resistance seemed greatly lowered and he gradually sank into a toxæmic condition and died a month after the operation, in spite of constant irrigation of the wound by the Carrel-Dakin method.

At the post-mortem the greater part of the large tumour was necrotic, with areas of infection. It bulged into the pelvis, and the right external iliac vessels appeared to run through the middle of it. A microscopic section of the tumour showed it to be an osteochondroma with no evidence of malignancy.

The family history of this patient is of great interest. His father had "lumps" on his ankles and wrists. They never gave rise to any symptoms, and he died of "heart failure" at an advanced age.



The patient has a sister and two brothers living, the sister and one of the brothers being similarly affected, although not to such an extent.

He has two sons aged respectively fourteen years and three and a half years.

The eldest son has had tumours growing from the end of his long bones since the age of four. One growing from the upper end of the right fibula caused limitation of movement of the knee-joint, and was successfully removed at operation in May, 1925.

The younger son has a swelling at the proximal interphalangeal joint of the fourth finger

of the right hand causing limitation of movement at this joint. An X-ray of this does not show any definite tumour, but the end of the phalanx is deformed.

L. WYNN HOUGHTON.

X-rays—

i. F. W., aged 47. Region of right hip-joint. "Tumour is so dense that a satisfactory radiogram cannot be obtained. Appearances suggest an ossifying chondroma."

ii. F. W. Right ankle, showing osteo-chondroma of lower end of fibula.

iii. H. W., aged 14. Upper end of right fibula.

iv. H. W. Left wrist.

v. H. W. Left elbow.

Reviews.

The Pathology of Tumours. By E. H. KETTLE, M.B., B.S. (Lond.) 2nd Edition. Pages viii. + 286. Illustrations, including 4 Plates, 159. Demy 8vo. Published by Messrs. H. K. Lewis & Co., Ltd. *Price* 12*s.* 6*d.*

THIS book, originally written in order to provide the student with a convenient sized manual, has been thoroughly revised and enlarged, but the primary intention of the author has not been overlooked, and the book remains, for the student, a most useful initiation to a subject upon which, it is often said, all books are bad!

The sub-division into three well-balanced parts is the most striking feature of the book. The first deals with general principles; the question of innocency or malignancy is well thrashed out, being aptly followed by sections on retrograde changes and dissemination, leaves one in little doubt of the determining factors of malignancy. Theories of origin and cause are not elaborated, but the more practical views are expounded, and the experimental study of cancer is reviewed at suitable length.

Part II. is entitled "The General Pathology of Tumours," and contains a lucid account of the characteristic features of all the better recognised tumours. Classification is discussed, and the tumours are described either as neoplasms of connective tissue, or of epithelium, or, and this is the clearest and best illustrated portion of the book, as endotheliomata, the author holds that the latter class is a strictly limited one; his reasoning is most convincing. Menalomata, hypernephromata and teratomata achieve sections of their own.

The last part is devoted to a reconsideration of tumours as they occur in the body; the various systems are taken and the more common growths detailed. This part probably is the most instructive, as it facilitates, by its numerous cross references, both the memorising of the facts necessary for sound differential diagnosis, and rapid but thorough revision of the whole subject.

Finally, the Index is excellent and complete, principal references being clearly demarcated from others of lesser importance.

Throughout, the author is conscious that experience is the best teacher; particularly is this true in the section on carcinomata.

Altogether an excellent effort, well meriting a second edition. All those who wish to profit by other's experience would do well to read this book, for which there should be a place in every student's library.

Saint Bartholomew's Hospital Reports. Vol. lviii., 1925. Published by Messrs. John Murray, London.

THIS, the 58th volume of the Reports, contains nine articles by members of the staff and others. Besides these, there are three In Memoriam letters, a list of subscribers, the Proceedings of the Abernethian Society and Paget Club for 1924, a list of specimens added to the Museum and books to the Library, a list of Prizemen and a summary of the Hospital Scholarships and Prizes, and finally a list of the Medical and Surgical Staff.

The first article is a short history of the Reports. The first volume was published in 1865 and one has appeared each year since then. The indexing has, so far, been compiled for two series of 20 volumes, so that the third

index is now almost due. It would seem that if the indexing could be compiled for shorter periods, the usefulness of the volumes would be considerably increased.

The article headed "The Vicissitudes of a Patient suffering from Trigeminal Neuralgia" (L. Bathe Rawling), is extremely interesting in that it is the actual verbatim account of a sufferer from this disease who had eight injections and finally an intra-cranial resection of the 3rd division of the 5th nerve.

R. G. Canti describes what should be an extremely useful method of demonstrating tubercle bacilli in cerebro-spinal fluid.

In an article dealing with the relation between ovulation, corpus luteum formation and menstruation, Wilfred Shaw confirms by his own investigations the view held formerly by Meyer, Ruge, and others that ovulation takes place at about the 14th day of the menstrual cycle.

Investigations of the intestinal flora and the changes produced in various ways, more especially by sour milk and its successor the B. acidophilus are expressed graphically by L. P. Garrod.

The clinical accounts and pathological findings of the specimens added to the Museum are singularly complete.

Seven post-mortem records with clinical histories are reported by Sir Bernard Spilsbury, and several case records by others.

The article by C. Langton Hewer on splanchnic analgesia is clear and complete. He has summarised his 19 cases in a table showing the operation performed, the result, the age, sex and pulse rate together with any necessary individual remark.

The articles as a whole are clear and expressive and make interesting reading, but are almost overpowered by the rest of the contents.

Handbook of Pathology. By Dr. C. Y. WANG, Professor of Pathology at Hong Kong. Pages x. + 513. Published by Messrs. John Bale, Sons, and Danielsson. *Price* 21*s.*

THIS book, written to meet the main requirements of students of medicine, certainly bears witness to the great amount of labour which must have been expended on it. Into 513 pages Dr. Wang has compressed all the more essential features of modern pathology, in a manner both lucid, and free from any irrelevant details or theories such as might confuse the student. The illustrations are remarkably good, but one may perhaps be forgiven the lament that the text does not rise to such a high standard of excellency. Some trivial inaccuracies occur, some of the statements made are false in light of modern knowledge, and, in places, the arrangement is unsatisfactory, but these faults are certainly few and the general expression is clear, concise and accurate. One, however, feels diffident about recommending this volume to the average student, in the first place because it occupies the rather undesirable position of being neither a complete text-book nor a true handbook such as one can carry about constantly, and again. because the price, which is necessarily high on account of the illustrations, is for this very reason out of all proportion to the amoount of subject matter which the book contains.

Diseases of the Heart. By Sir JAMES MACKENZIE. Oxford Medical Press. Fourth edition. *Price* 30*s.*

SIR JAMES MACKENZIE had just completed the fourth edition of his book on diseases of the heart, before his death robbed medicine of one of its most earnest seekers after truth.

The new edition has been entirely re-written, and the present state of knowledge of diseases of the heart at the St. Andrew's Institute of Clinical Research is presented in a masterly manner.

Throughout the book there is a plea for a broader outlook in cardiology—the heart cannot be understood by a study of the heart alone—and this broader view is attained by the adoption of what he calls the principle of the reflex arc. All organs in the body possess structures upon which their functional activity depends, and cessation or impairment of those activities must depend on some lesion of those structures. By the application of the reflex arc is meant the analysis of those structures, constituting the arc, in which the disturbance arose, and a search for the nature of the vital process which resulted in the production of the dysfunction. Only in this way may one arrive at an intelligent prognosis, a much neglected art.

The various forms of irregularity of the heart are fully dealt with, and here especially the text is remarkably well illustrated with tracings from graphic instruments. Such tracings should, however, only help the practi-

tioner to a better clinical sense; the discovery of an extra systole by this method should only stimulate him to feel that particular pulse many times, so that when the occasion arises he may make his diagnosis without such aid.

It is surprising, but none the less pleasing, to find that in a book of 480 pages only 20 have been devoted to cardiac murmurs. Too much attention has been paid in the past to the mere presence of a murmur without due consideration of the evaluation of that sign. The greater part of the book deals with the question of evaluation.

Some space has been set apart for a few remarks on instrumental methods of examining the heart. It was, however, beyond the author's purpose to deal with this more fully, although he considers it important that the physician should "be familiar with their interpretation in order that he may appreciate and apply the results."

The book has been primarily written for the general practitioner, and, busy man though he may be, a perusal of these pages will well repay him. To the senior student, too, the book should make a special appeal.

The publishers must be congratulated in the matter of the paper and printing, and especially on the many excellent tracings and diagrams which illustrate the text so freely. There are in addition four coloured plates illustrating the section on angina pectoris.

Altogether a valuable book.

A Synopsis of Medicine. By A. LETHEBY TIDY. Published by Messrs. John Wright & Sons, Ltd. 6th edition. *Price* 21*s.*

THE sixth edition of Dr. Letheby Tidy's book is what it sets out to be, a thoroughly up-to-date synopsis of medicine.

Its scope is wide, nothing of importance being omitted, and with the exception of the sections on syphilis of the nervous system, which are found to be rather complicated, the text is both concise and definite.

The paragraphs on treatment are very sound and perhaps form the most valuable part of the book. One finds the few pages on the dietetic and insulin treatment of diabetes clear and simple, a thing which will be much appreciated by the student up for his final and by the practitioner who has little time to read the numerous pamphlets on that subject.

A good cross index is appended.

Handbook of Gynæcology. By BETHEL SOLOMONS. Published by Messrs. Baillière, Tindall & Cox. 2nd edition.

THIS edition has been brought thoroughly up to date; as an example of this may be noted the account of Rubin's work on inflation of the Fallopean Tubes for the diagnosis and treatment of certain types of sterility. There is also an excellent short resumé of the recent advances that have been made in Deep X-ray Therapy in its application to Gynæcology.

The stereotyped classification of types and causes of disease has been avoided as much as possible throughout the book; and although this may possibly be a disadvantage from the point of view of the reader whose sole aim is to pass an examination, yet it enables the author to present the main principles of the subject in a very readable fashion. Throughout, a very notable feature is the way in which a sound pathological explanation is usually forthcoming in support of statements of fact.

The small size of the handbook necessarily precludes anything like an exhaustive account of the subject being attempted, but, combined with the clinical experience that is to be obtained by the student in the wards and at out-patients, this book should enable him to obtain a very clear conception of the main principles of gynæcology.

Notice.

Guy's Hospital Musical Society.

A CHORAL and Orchestral Concert will be given in the Chapter House, St. Thomas's Street, on Wednesday, December 9th, at 8.15 p.m.

The programme will include the "Wedding Feast" from "Hiawatha" (Coleridge-Taylor) and Haydn's 2nd Symphony in D.

Soloists will be Nurse Constance Evans (Soprano), Mr. G. Trevor Hankey (Tenor), and Mr. Herbert Templeman (Violin).

The prices of seats will be 5s. 9d., 3s. 6d. and 1s. 10d. (including tax), and tickets may be obtained from the Secretaries, Members of the Society, or the Wills Librarian.

G. T. HANKEY,
S. C. H. LANE,
Hon. Secs.

Correspondence.

The Pavy Gymnasium.

DEAR SIR,—Will you be kind enough to allow me to protest most strongly against the disregard for rules of the Gymnasium? The notice to the effect that the Horizontal Bar must not be taken down is there for a very sound reason. Accidents have happened through its careless erection, and also the stays are so badly treated that they will not last out the season if the present treatment is continued.

It is certain that the bar was taken down again on Thursday last, November 12th, after 3 p.m., because I found it this morning with the perpendicular upright at an angle of nearly 75 degrees with the floor. Those that disregard the official order on the wall of the Gymnasium should be less careless in hiding their disregard for rules.—Yours truly,

CHAS. H. JOHNSON,
p.p. The Captain of the Gymnasium.

The Pavy Gymnasium,
November 13th, 1925.

DEAR Mr. Editor,—May I through you convey the best thanks of the Residents to all who helped to make the Residents' Dance so enjoyable?

We feel especially indebted to our Hostess, Mrs. Steward, and to all those ladies who so kindly acted as Patronesses.—Yours very truly,

R. B. FAWKES,
President of Residents.

Sport.

Rugby.

Guy's v. Cambridge University.

ON Wednesday, November 4th, we played the Light Blues at Honor Oak Park. They beat us by 8 points, that is a goal and a try to nil. It wasn't a severe defeat, but one thinks, on reflection, the result should have been just the other way round. There was some hesitation in going for the man with the ball, which is a great pity. It undoubtedly was the reason the first try was gained and this came very soon after the kick off. There were only three Blues in the side, W. I. Jones, Barlow and Francis, and it wasn't a strong side on paper. We were not a strong side either, but we enjoyed, for the first time this year, the assistance of our Captain, J. Durr.

This first try which Cambridge got, and which we never seemed really likely to catch up to, was secured by G. B. Wakefield, a younger brother of Wakefield of England. That is quite enough description. The ball was swung across field with good long passes till Aarvold, the centre who is up at Cambridge from Durham School, a Freshman who is already famous, secured it, and he was allowed to pass to Wakefield to whom Boyle never really got. The conversion was easy. We had a couple of penalty shots, which were not taken advantage of, and were treated to some excellent play on the part of Garland, who was quicker than Turnbull of Cambridge. Steyn put in a good run or two, but Fellowes-Smith could not catch the ball, the right wing never therefore came properly into action and half time found us still 5 points down.

The second half was good and hearty, but not skilful. Clarke, in the centre, was robust and plucky, but he must play with his head as well as his hands and feet. Leslie did all he could and the same remark applies to Boyle.

It should be mentioned re Clarke that it was a hard test to ask him to play centre in this important match, so allowances must be made. He has had no practice in this position for many months. There is little to report in detail; Cambridge scored again about 15 minutes before the end and again it was Wakefield who did the trick. Cameron played a good game among the forwards, who finished up one short, Visser having to leave the field with what looked like a slight concussion.

Little has been said in this report about Cambridge, since any daily paper will tell you all about them. In fact some of them wrote about Cambridge altogether; after all, one thinks Guy's provided worthy opposition even though once again success did not accrue.

Guy's Team.—V. G. Boyle; G. Fellowes-Smith, C. L. Steyn, G. Clarke, W. Leslie; T. O. Garland, P. D. B. Spence; J. Durr, W. H. Myburgh, G. G. Cameron, J. Popplewell, W. Hops, J. H. Richmond, E. W. Hutchinson, J. D. Visser.

Guy's v. London Scottish.

PLAYED at Richmond, on Saturday, November 7th, in a drenching rain. Some of our team had played about 4 matches in 8 days. Good going this, but very liable to make one stale. Practically all had had enough against Cambridge and candidly the men who turned out against the Scottish were suffering from absolute lassitude and want of "pep." The team was at half strength, J. Durr, G. Cameron, J. W. Schabort, V. R. Preen, T. O. Garland, J. G. Van Schalkwijk, all away, and the weather, together with this list of absentees, seemed to me to be on the minds of the forwards all through. We were beaten by 2 tries to nil. People perpetually ask me why we don't score? Why we lose matches and so on? As though there were something criminal almost about this lean period which we are suffering. My job is to report the matches and not find out the answer to these pointed questions. But if the Editor will allow me, it would get it off my chest once for all, just to say, we have lived for years on a very high pedestal and we must occasionally come down to a lower level; so you must be patient, don't hurry your injured players back till they are fit, and don't worry the Executive because we are doing badly. It's always a bad habit to grouse at the man at the wheel.

The Scotsmen started off with a mighty burst led by MacMyn of Scotland, Cambridge and King's Hospital. Rennie, an Army forward, MacGlashen, the hooker, MacLeod, and R. I. Marshall were the leading men in the home pack, and they set about our fellows in good round fashion, we got stuck in our own "25" till the Referee commenced giving free kicks against us, from one of which Steyn secured and apparently feeling annoyed with the weather and other things, punted the ball from behind the goal line beyond half way. A magnificent kick. The Scots were soon back and MacLeod went over for a try. MacMyn and Steyn next had a run for the touch, but our man won and so MacMym lost his opportunity to score.

Twice P. D. B. Spence ran through the opposition splendidly. Spence used much ingenuity, and played finely all through, but neither time was his final pass accepted. Hops played excellently and fed Spence well, but it was after that that the machinery was out of order. Half time, London Scottish 3 points, Guy's nil.

After Eckhoff had pulled one or two people's heads almost off and others had tackled so high that the Scotsmen simply ducked and went on, play settled in midfield, but it was very scrambling. The Scots were supposed to be weak behind the scrum, but there was not much evidence of it on Saturday. A clinking run by Fraser and a terrific pass inside, which Langlands accepted, saw the last named bang himself over the line—6 points to nil.

When we got the ball, and we did get it more often as the game went on, the passing broke down often. The ball was like soap, but the Scots handled it. No, our threequarter play was not good and our forwards were very slow indeed and very tired. Myburgh worked like a horse, and Popplewell never ceased his efforts. Boyle is a very good full back, but one thinks there are moments when he should find touch instead of scrambling near the line. Clarke might take note as well.

It was a good sporting game, twice the Scotsmen might have had shots at goal from penalties against us, but didn't, preferring the kick to touch, or lofty punt. It was a pity it rained so, in any case the London Scottish would, one thinks, have beaten us, they thoroughly deserved their win, but fine weather does so help one's enjoyment of the game. If you don't believe this ask Boyle.

Guy's Team.—V. G. Boyle; G. Clarke, G. Fellowes-Smith, C. L. Steyn, G. R. Mostert; W. Hops, P. D. B. Spence; W. H. Myburgh, E. W. Hutchinson, J. Popplewell, J. H. Richmond, C. Kurtz, J. D. Visser, W. J. Radford, N. L. Eckhoff.

Soccer.

Guy's "A" v. H.A.C. "A."

PLAYED. Saturday, November 7th. Very rarely, of recent years, have Guy's visited Armoury House and returned victorious; to-day, Guy's, playing well together and taking their opportunities, beat their old opponents 8—2, well meriting their fine victory.

Guy's "kicked off" and despite the slippery nature of the ball and pitch the ball was kept well under control and passed from player to player. Owing to good work from Fitzgerald, Guy's outside right, the Hospital soon obtained a lead. Cathie scoring from a perfectly placed centre of the former's. Within 20 minutes Guy's had netted four times, Allott scoring the second, Channon the third and fourth, all the shots giving the goalkeeper no possible chance of saving. No further scoring resulted before half-time, although Cantor, Fitzgerald and Allot sent in many good shots. The H.A.C. had two golden opportunities, but over-eagerness marred their chances. Half-time score: Guy's 4, H.A.C. 0.

On resuming, Channon soon gave Guy's a further lead, after which the H.A.C. had much more of the game than previously. For a considerable period the H.A.C. penned Guy's in their half, scoring two goals in quick succession. Owing to an error of judgment of the referee the H.A.C. were awarded a penalty; this chance was deliberately neglected. Guy's were roused to further efforts and before full time Channon had added another brace to his "bag," and the last was scored by Siggers. Guy's team was a much stronger one than that of the previous Saturday, Cantor, Ginn and Allott returning after an absence of a week or so. White played right back and was a great improvement, his first-time kicking under pressure being very steady. The forwards combined well, Fitzgerald and Channon being the best; the latter was not prominent with clever play but rather with his deadly accuracy in front of goal.

Guy's Team.—Henderson; White, Robertson; Siggers, Ginn, Daplyn; Fitzgerald, Allott, Cantor, Channon, Cathie.

Guy's v. H.A.C.

THIS match is always keenly fought, and this year was no exception to the general rule, although the game passed off strangely uneventfully.

The first half was very even, both defences being very sure and neither goalkeeper very much worried. We led at half-time by a goal to nothing, a goal that was somewhat luckily obtained from a shot by Fulford which an opposing back had the misfortune to put into the net.

The second half was as evenly fought out as the first. With ten minutes still to go, the H.A.C. led 2—1; then Couch and Williams got away for Couch to equalize and for us to record our fifth consecutive draw with the H.A.C. We ought to have won, for there were two or three glorious chances thrown away. The game showed, however, that the team is settling down and playing better together.

We are very hopeful of retaining the London University Cup, and hope that as many Guy's men as possible will come and give us their encouragement on Wednesday, November 21st, when we meet Royal Dental Hospital at Honor Oak Park in the First Round.

Guy's Team.—P. Evans; Hancock, Berman; Blaikley, Couch, Smallshaw; Kendrick, Walters, Williams, Evans, Fulford.

Guy's v. Chelsea Polytechnic.

THIS game was played at Mitcham in foggy weather and resulted in a win for the Hospital by 5—1. We had not our strongest team out, but perhaps the opposition was weak, for we ought to have won even more easily. Goals were scored by Fulford (2), Walters, Evans and Kendrick, Walters being quite the best of a forward line that generally outplayed their opponents.

Guy's Team.—Fitzgerald; Hancock, Bradley; Gray, Smallshaw, Blaikley; Kendrick, Walters, Evans, Fulford, Cathie.

Fencing.

THE Hospital Team went down to Oxford on Wednesday, November 4th, and lost by one point only. If Johnson had not completely broken down in both foil and epée the result would probably have been reversed. Scorer had previously shown better form, while Gover and Monkhouse both made useful contributions. T. Silvester, Captain, made an excellent score sheet in winning ten out of twelve fights:—

Result.—Oxford 25, Guy's 24; 1 coup double in epée.

Foil—

T. Silvester, won 2, lost 2.
S. A. Scorer, won 1, lost 3.
C. H. Johnson, won 0, lost 4.
El L. Monkhouse, won 2, lost 2.

Epée—

T. Silvester, won 4, lost 0.
P. A. Gover, won 2, lost 2.
C. H. Johnson, won 0, lost 4.
*T. B. Pitts, won 1, lost 3.
*Coup double.

Sabre—

T. Silvester, won 4, lost 0.
S. A. Scorer, won 3, lost 1.
C. H. Johnson, won 3, lost 1.
E. H. Monkhouse, won 1, lost 3.

Hospital Information, etc.

Specialities.

Therm'x Flameless Heaters.

FREDK. POLLARD & CO. (BEARINGS), LIMITED.

WE wish to draw our readers' attention to the Therm'x Flameless Heaters, which are invaluable for heating any place where inflammable stores are kept, viz., garages, motor or aeroplane engines, chemical stores, etc.

The model No. 12 is specially designed for motor cars, can safely be put in the bonnet and will give off sufficient heat to prevent the water and cylinders being frozen, even in the most severe weather. It will burn for 24 hours on end, and consumes ¾-pint of petrol at a cost of 2d.

It is odourless, the adjustment is automatic, and it burns continuously if the fuel supply is replenished before the reservoir is exhausted (from 24 hours to three days in most models or less frequently on some special models). For domestic heating of rooms, foot warmers, pocket heaters, photography—in fact, for all places where healthiness, cleanliness, no risk of fire, absence of supervision and burning for several days is required—models are made to suit every case.

"Sanoid" Ligatures.

MESSRS. CUXSON, GERRARD & CO., LTD., Manufacturing Chemists, etc. Oldbury, near Manchester.

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Papers by Guy's Men.

J. B. Parfitt, L.D.S., M.R.C.S., L.R.C.P. Some Notes on a Short Tour in the Eastern States.—*Brit. Dental Journal*, xlvi., 1925, 1321.

F. N. Doubleday, L.D.S., M.R.C.S., L.R.C.P. A Report on Certain Drugs and Solutions used in Local Anæsthesia.—Ibid., 1330.

Change of Address.

J. L. L. Walker, M.R.C.S., L.R.C.P., "Stamford," 395, Streatham High Road, S.W.16. Phone, Streatham 2080.

L. G. Housden, Church Square, Basingstoke.

T. L. Heath, 22, Beulah Crescent, Thornton Heath, Surrey.

Miss E. Shaw, S.R.N., 158, Adelaide Road, N.W.3

Guy's Hospital Gazette.

(ESTABLISHED 1872.)

A Journal of Hospital News, Medicine, Surgery, and Dentistry.

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The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

EDS. { C. P. B. / S. V. S.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume XXXIX. *December 5th, 1925.* *Number 976*

PASSIM

THE following announcement may be of interest to students who hope to qualify shortly and who are in doubt as to what to do afterwards.

An Appointments Committee was formed in June of this year, consisting of Dr. Fawcett, Mr. Steward, Mr. Mollison, Prof. Johnston and Dr. Conybeare, with the object of bringing into touch old Guy's men anxious to find assistants, whether for hospital work or for private practice, and recently qualified Guy's men who wish to find positions in the profession. If freely consulted, it is clear that this committee might prove of substantial help to all parties, and its activities will obviously promote a spirit of Hospital solidarity, and esprit de corps between the older and newer generations.

A circular letter was sent to old Guy's men informing them of the creation of this committee last June, but it seems that its existence is not as well known to the present generation of senior Guy's students as it might be. The committee hopes that all who are in doubt as to their future will consult it without hesitation. No fee, of course, is charged for advice given by it.

WE regret to announce the death of Mary Reordan, a figure who will be well known to old Guy's nurses. She came here in 1888 as a scrubber and was pensioned in 1915, since when her health has been failing. She worked in the Nurses' Home since it was built in 1901, where she was known for her ungracious behaviour to all who defiled with their dirty feet the marble steps which were her pride, and the cleanliness of which it was her office to maintain. She was also known for her healthy contempt for students and doctors. There is a story current of her that when suffering from a sprain she was advised by Matron to have it dressed at the Front Surgery. With a suave smile that did not conceal a firm inner resolve, itself the fruit of long personal experience, she replied: "And have myself pulled about by those ignorant and impudent youngsters. No, thank you very much, Matron, for your kind interest. Not this time."

WE have been asked to insert a request that Members of the Visiting Staff see that P.R.D. Cards be filled in and returned to the Front Surgery. It appears that only a small percentage of them are at present finding their way back to the little wooden box which should be their eventual destination.

IN the last State Examination in Nursing there were from this Hospital 29 candidates for the Preliminary and 13 for the Final Examination. Of these all, without exception, passed.

We congratulate Mr. Forman, Mr. Fawkes, and Mr. Lane on their achieving Membership of the Royal College of Physicians.

At 8.15 p.m. on Wednesday, December 9th, the Guy's Hospital Musical Society will give a performance including "Haydn's 2nd Symphony in D," and "Hiawatha's Wedding Feast," in the Chapter House, St. Thomas's Street.

Though this Concert has been well advertised the tickets have not sold as well as they might have done, and it is hoped that all members of the Staff and students who can do so, will support the Society by attendance.

By an error, a photograph pertaining to the "Interesting Case" published in this number, was included with those that belonged to the one published a fortnight ago, and was published then. We will reproduce the photograph in our next number, together with the text to which it belongs. In the meantime we apologise to Mr. Houghton, to whom we are indebted for accounts of both cases.

Messrs. Ash & Co. ,Ltd., are again supplying Hospital Christmas Cards, which can be obtained either from the Wills Library or Matron's Office. These cards are similar to those provided last year, with stamped Crest and Hospital Colours, at 4d. each, another being added with full Hospital Crest in gold and colours at 6d. each. The proceeds are entirely devoted to the Hospital Funds.

Pass List.

L.D.S.

Final Examination.

November, 1925.

Part I.

C. B. Boyd.
E. Boyd.
A. A. Danino.
H. E. Edney.
M. Farwell.
G. E. Long.
R. E. Rix.
C. L. Steyn.
J. W. J. Visser.
M. Wolman.
D. M. Calder.
S. Droomer.
W. G. Fenn.
M. Gerson.
K. H. Greenwood.
W. Hops.
W. H. Naylor.
G. W. Oliphant.
T. T. Oliver.
E. N. Screech.
N. v. Z. Smit.
J. Stazunsky.
A. G. Taylor.
A. E. Treweek.
J. White.

Part II.

C. B. Boyd.
M. Farwell.
R. E. Rix.
J. W. J. Visser.
I. A. Barlow.
S. J. Brown.
P. S. Clarence.
T. S. Davidson.
E. F. S. Dodd.
C. H. Edney.
H. Fa k.
W. C. G. Ford.
R. D. G. Gain.
P. Gerrard.
R. H. Hancock.
E. R. Irish.
H. D. Kendrick.
J. W. Kingston.
R. C. Lilycrap.
E. A. Moss.
H. Myers.
R. M. Phillips.
W. R. Rowland Hill.
C. M. White.
E. C. Woodhead.
G. C. Ferguson.

University of Cambridge.

M.D.

November, 1925.

G. H. Oriel.

The Pavy Gymnasium.

THERE will be a General Meeting of the members of the Pavy Gymnasium on Tuesday, 8th December, 1925, in the Physiological Theatre, at 5 p.m.

All those who are keenly interested in Boxing, Fencing or Gymnastics are particularly invited to make a special effort to attend.

R. L. DUCHESNE,
Hon. Sec.,
Guy's Hospital Clubs' Union.

Agenda.

1. Discussion of New Rules, and Constitution for the Pavy Gymnasium.
2. Election of Officers for Season 1925—26.

Notice.

Guy's Hospital Clubs' Union.

ALL members of the Clubs' Union are reminded that Membership Cards must be shown entire, on demand, either at the Athletic Ground or the Students' Club and are NOT TRANSFERABLE.

In future all cards will be carefully scrutinised at the ground and in the event of Membership Cards being used by others than the owner, the card will be confiscated and the privileges of membership withdrawn from the members loaning their cards to be used.

R. L. DUCHESNE, *Hon. Sec.*,
Guy's Hospital Clubs' Union.

Impressions of Danish Medicine.

A CROWDED fortnight in a foreign city never previously visited must needs leave the mind replete with impressions. When that city is endowed with the beauty, the freshness and the friendly hospitality of Copenhagen and the time is occupied not merely with the usual visits to places of interest, but also with many hours of intensive instruction in two hospitals, three days at a sanatorium, a day in Sweden, and much private converse with genial hosts all eager to describe the art, the political systems, the social customs, and more particularly the medical services of their progressive little state—then the impressions become somewhat difficult to sift.

Let it be understood at once the observations recorded below are *only* impressions, and very unofficial ones at that. Although they might seem to do so, they are not intended to compete with the achievement of a certain American who visited Copenhagen recently to draw up a report on "Medical Education in Denmark." According to our Danish informant this whirlwind expert arrived at the Rigshospital in Copenhagen one day at 10 a.m., and, undaunted by a total ignorance of the language and the country, left at mid-day with the report completed.

The medical impressions garnered in the course of our own fleeting visit can be conveniently arranged under the following headings:—(1) The Hospitals; (2) Medical Education; (3) Medical Practice; (4) Public Health; (5) A famous Sanatorium; (6) Progress with Sanocrysin.

(1) *The Hospitals.*

The hospitals of Denmark are all under state or municipal control. The majority of them have been built within the last ten years, with the result that their construction and general arrangement and organisation are far more up to date than anything to be found in the London General Hospitals.

The Bispebjerg Hospital situated on the outskirts of the city is a good example. It consists of six commodious, two-storied blocks or pavilions situated in a large park, and separated from one another by flagged paths and beautiful gardens. The buildings are of red brick, pleasingly designed, with pantile roofs. All these blocks, the administrative offices, and doctors' and nurses' quarters are connected by underground passages capable of enveloping four or five passages of the type with which we are familiar at Guy's. The wards are beautifully lighted, ventilated and centrally heated. Each floor has a large central common-room for patients who are up and about and several smaller one or two-bedded rooms for private cases or for patients who have become too seriously ill to be nursed in the main ward. The kitchens, laundries and milk-sterilising room for infant milk supplies are very perfect, and built on such a scale that the size of the hospital (which already takes 600 patients) could be doubled without straining the capacity of these departments.

The physicians and surgeons to the hospital are provided with roomy flats, and the house officers also have fine quarters. Beauty as well as utility has been studied. Thus each ward is decorated with one large coloured panel, representing varieties of bird life and painted by a well-known artist, as a relief to the monotony of its walls. The hospital draws its patients from the city of Copenhagen. There is no out-patient department, patients being sent in straight for admission by their own doctors. The nursing is of a high standard, but the strict conventions of English nursing are less closely observed and the number of nurses perhaps too few in proportion to the number of patients and the size of the pavilions.

An obvious criticism of what otherwise appears such a magnificent system is its extravagance. The hospital covers so many acres that the cost of heating, lighting, water-supply, and the provision of an adequate personnel must be very high. A small contribution is made by each ordinary patient, and private patients pay from 10 to 15 kronen (shillings) a day. All other expenses are met out of the national taxation.

The medical and surgical sides of the hospital each have their chief who, in addition to his professional duties, is responsible for a great deal of the administration. Under the chief are first and second assistants, the first assistants being of the seniority of as-

sistant physicians and surgeons at a London hospital, and there are about 16 house officers. The chief, and in some cases the first assistant, are allowed private practice in the afternoon. All the routine laboratory work of the hospital is done by the assistants or residents. Specimens requiring special investigations are sent to a central Pathological Institute in Copenhagen. There is no official teaching at the Bispebjerg Hospital, but the warmest welcome is extended to foreigners in search of instruction, and at the present time the hospital is famous as the home of researches conducted by Dr. Knud Secher, the pioneer of sanocrysin treatment in human pulmonary tuberculosis.

The Rigshospital is the central state hospital and is situated in the middle of Copenhagen. It can accommodate 900 patients. Not quite so recently built as the Bispebjerg Hospital, it nevertheless embodies most modern improvements. It is the only teaching hospital in Denmark, and is therefore well equipped with laboratories and lecture theatres. It is built in the same style as the Bispebjerg Hospital with beautiful gardens and fountains and outdoor shelters for convalescent cases and tuberculous patients. There is very little out-patient work and no general out-patient department, although certain special clinics such as maternity and infant centres have lately been added.

The provision of beds throughout the country is so ample that the need for big out-patient departments is less urgent than in London. Any seriously ill patient and all cases requiring in-patient investigation can obtain admission without serious delay. Every provincial town of any size is provided with a modern hospital and its appropriate staff under state or municipal supervision. The larger administrative control is in the hands of committees including both lay and medical representatives. There are no nursing homes for the hospitals are open to patients of every class.

(2) *Medical Education.*

We were fortunate in having an introduction to Professor Knud Faber of the Rigshospital, who showed us the greatest courtesy, took us on several rounds of his wards, demonstrated special cases, and welcomed us at routine lectures to the students, besides answering innumerable questions relative to clinical teaching and the medical curriculum. It takes seven or eight years for the student to complete his course in Denmark, about half the time being devoted to clinical studies. There are no fees at all for medical education, which, in common with all other education and with the addition of standard text-books, is provided by the state.

We had no opportunity of seeing the work in the pre-clinical period, but the grounding in the preliminary sciences would appear to be very thorough. Clinical lectures and demonstrations are admirably staged and the clinical theatre is better equipped and lighted and the epidiascopic arrangements are more perfect than anything we have seen in London. Notwithstanding the language difficulty it was a great pleasure to attend Professor Faber's lectures, for he is the ideal clinical professor. He has the demonstrative skill and simplicity of diction of the great teacher. Although already at an age which would have necessitated his retirement from a London hospital staff his mind is keener and more active than that of many a younger man, and, while cautious and critical, he has constantly shown himself ready to apply new methods.

Sanocrysin treatment is at the moment receiving a judicial trial at his hands. His writings on gastro-intestinal disease, on pernicious anæmia, and many other subjects, have long since earned for him a reputation in all countries. Having both clinical and pathological first assistants Professor Faber is well supported in any research which he may wish to direct, and with his own wide clinical experience is more likely to focus attention on essential problems than a man of the modern school more specially trained and endowed.

The professors (medical and surgical) are provided with a house and garden in the grounds of the hospital and devote the whole of their mornings to hospital and teaching duties.

Professor Faber starts the day with a round of his wards accompanied by his first assistant (clinical) Dr. Gram (son of the discoveror of Gram's stain), and his first assistant (pathological) Dr. Holst. In addition he is attended by his second assistant, a house officer, and the ward sister. No students are present.

Owing to the difficulty of demonstrating to large numbers of students at the bedside (and

the numbers just now are very large), Professor Faber has not adopted the English system of ward teaching; this and the almost complete absence of Out-patient teaching struck us as one of the strongest criticisms of the Danish system, which conforms, of course, with the system in vogue in most other continental countries. It would appear that the students are set to write up cases in the wards from time to time, but the final ward reports are written by one of the second or first assistants, and so far as we could determine the students have no definite cases or beds allotted to them. We were interested to watch a method employed by Professor Faber in preparing men about to sit for their final examinations. On certain days one of these candidates is provided with a case from the wards which he has not previously seen; he is given an hour to examine the case and investigate it in any way he thinks fit in a laboratory adjoining the clinical lecture theatre. At the hour of the ordinary clinical demonstration the theatre fills with students as usual and the candidate (perspiring freely) brings in his case. The professor takes a chair beside him and bids him proceed. Thereupon he has to give a complete exposition of the case in an orderly and audible manner, without notes, describing the history and physical signs and the results of his special examinations, and finally to make his diagnosis—in Latin.

Then the professor questions him minutely and calls down students from the auditorium to confirm or confute the physical signs. Finally, in chest or stomach cases, X-ray plates are produced and the candidate is called upon to demonstrate these as well. It is a gruelling test, but eminently practical and instructive for all concerned, and calculated to teach the candidates confidence and clear diction. The good humour of the professor and his class did much to help the victims.

Over every bed in the wards is hung a slate upon which the diagnosis in Latin is chalked. No case must be without a diagnosis, but the advantage of the chalk is that the diagnosis can be altered from time to time without disfigurement of the bed-letter. Main observations such as the last temperature, pulse-rate, or blood-pressure readings are also entered on the slate. The types of case seen in the wards were not different from those seen at Guy's with the exception, perhaps, that obesity and arterio-sclerosis seemed to be more prevalent. At this we were not surprised, for the Danish appetite and the liberal and rich repasts with which we were ourselves provided were a continual source of astonishment.

After qualifying no man is regarded as eligible for a hospital assistantship or public appointments or is able to fit himself for work in any speciality unless he has done one year of house-appointments, six months medical and six months surgical, in a recognised hospital.

(3) *Medical Practice.*

Denmark is so well provided with hospitals that there are many institutional appointments available. Each hospital has its chief physician and surgeon, its first assistant and at the larger hospitals second assistants and a number of recently qualified kandidats or house-officers. A man will usually have attained the age of thirty-five, or forty, before he becomes a first-assistant. Part-time consulting practice is allowed to chiefs and first-assistants. General practice here, as elsewhere, claims the majority. A feeling prevails that the profession is over-crowded at the present time.

The Danish Medical Association, an organisation which corresponds closely to the British Medical Association, is a very powerful body. It has complete power of decision with regard to the adequacy of salaries and no medical man is allowed to take an appointment if the salary is regarded by the association as inadequate. No one can become a specialist in Denmark unless he has a certificate from the Danish Medical Association stating that he has qualified himself in his particular speciality by serving an apprenticeship, generally of several years, after his year of house-appointments.

(4) *Public Health.*

The public health services in Denmark are probably as advanced as in any other country in the world. The streets of the capital are an example of cleanliness and the sanitation in private houses and hospitals is of a high order. All houses are centrally heated, there are no factories in the centre of the town and coal is prohibitive in price, so that the smoke nuisance and fogs are insignificant.

Purification of food-supplies has become a national boast, and, as the country's reputation depends on its food exports, standards must be maintained. No preservatives in food are allowed. Every slaughter-house, every stable and piggery in the country is regularly

inspected. The milk supply in Copenhagen is Pasteurised before it goes on the market. Every slaughter-house has two or more veterinary surgeons attached to it and a pathologist's opinion is available.

No Copenhagen housewife will eat fish unless she has bought it herself alive and kicking at the canal side, whither the morning's catch has been towed in special boats with perforated sides so that the fish are genuinely "all alive oh."

(5) *A Famous Sanatorium.*

A visit to Vejlefjord Sanatorium—made famous by the work of the late Dr. Saugmann—is an education in itself. The sanatorium is a hideous but well-arranged building situated in woods which slope down to a beautiful inlet of the sea in eastern Jutland. Dr. Gravesen who was formerly first assistant to Dr. Saugmann is now chief. A man in the middle forties he has an established reputation for his knowledge of pulmonary tubercle and for his work on pneumothorax and thoracoplasty in particular.

Foreign physicians are received as guests at the Sanatorium and treated with the greatest friendliness and courtesy. The sanatorium is a private one, but is endowed, and the charges fall within the means of what we should call middle-class patients. We were invited to witness the method of examination of new patients and the clinical and radiological re-examination of old patients, and were shown results of pneumothorax treatment and of thoracoplasties and, what was perhaps most interesting, of sanocrysin treatment or sanocrysin combined with other methods.

(6) *Progress with Sanocrysin.*

Interest in the sanocrysin treatment of pulmonary tuberculosis has been so slow to develop in this country that it is quite impossible to form any estimate of its value without a visit to the home of its discovery by Professor Moellgaard. The treatment is in use in all the large hospitals and in many sanatoria in Denmark, and several physicians including Dr. Knud Secher, Professor Knud Faber and Dr. Permin have made valuable contributions to the literature of the subject. Sanocrysin is no more a cure for established tuberculosis than are iodides and arsenical preparations for established syphilis, but that it has some specific effect on fresh tubercular infiltration of the lung would seem to be determined beyond dispute, and that it constitutes an important addition to other methods of treatment is becoming a reasonable claim. Although the treatment is often attended by unpleasant symptoms, the dangerous reactions which were obtained at an earlier stage can now be confidently avoided, and much has been learned about dosage during the past year.

Actually we saw no case in the course of our visit which could be characterised as a "cure," but insufficient time has elapsed since the introduction of the treatment for "cures" to be established, and the treatment hitherto has of necessity been chiefly employed in cases of a certain severity in which ordinary methods had failed to achieve satisfactory improvement. Tuberculous pleurises and early cases with slight constitutional symptoms are not treated by the method as yet, and only time can show whether it will ever become justifiable to regard the method as an appropriate and specific remedy in the earliest recognisable phases of the disease.

Opinions were obtained from Dr. Secher, the enthusiastic pioneer in the work; from Professor Knud Faber, an experienced general physician of sound and balanced judgment and a decidedly critical personality; and from Dr. Gravesen who has an extensive experience of the medical, surgical and radiological aspects of the disease. Slight differences of opinion in regard to initial dosage, selection of cases and the desirability of combination with other forms of treatment were, as might be expected, encountered, but there was complete unanimity in regard to the only strong contention advanced. That is to say, that in a suitable case sanocrysin is capable of bringing about in a period of a few weeks or months clinical improvement in respect of weight, temperature, sputum and general well-being, and changes in the radiological appearances, which nothing short of a year of other treatment could previously have been expected to achieve, and furthermore that in some very severe cases the rapid progress of the disease can be arrested and an unfavourable situation made favourable. Radiograms taken during the treatment are very instructive. In periods of three months and less the fluffy shadows of fresh infiltration or pneumonic spread may be seen to disappear or to be replaced by the thin streaks or striations which are usually held to indicate fibrotic scarring.

Among the most striking demonstrations were those of Dr. Gravesen in which a unilateral case having had an initial treatment with pneumothorax, apparently successful at first, had again become stationary or developed fresh symptoms or signs of activity, and in which a radiogram of the previously sound lung now revealed small areas of fresh disease. In such cases and within a period of weeks sanocrysin is capable of clearing up clinical symptoms and signs and promoting a disappearance of the shadows seen in the radiogram. If treatment with sanocrysin has achieved nothing else it has shown the importance not merely of periodic screening but of periodic radiograms for purposes of watching local progress or retrogression. Needless to say, a first-class apparatus and a standardised technique in the radiographic work are essential.

We were much struck by the superior quality of the chest radiograms seen at the Bispebjerg Hospital, at the Rigshospital and at the Vejlefjord Sanatorium as compared with our home product. Better apparatus rather than better technique would seem to be the explanation. It must be remembered that under the Socialist regime which obtains in Denmark no expense is spared where provision of modern apparatus is required. Furthermore the X-ray departments are not crippled by having to contend with the flood of out-patient work with which our departments are at present inundated.

Conclusion.

We saw nothing during our visit to suggest that state service has impaired the efficiency or damped the scientific ardour of the profession. Keen minds and humane hearts, activity in research and good sense in practice are as prevalent under the newer system as they have been under the old, and as they always will be where the service of a suffering mankind is in question and the call of scientific discovery is heard.

There are signs that the Scandinavian cities may supercede in popularity the older haunts of learning in Germany and Austria. Scandinavian medical literature is attracting a wider public year by year, and the foresight shown in the publication of the Acta Scandinavica in three languages is compelling the interest of all nations.

Any Guy's man in quest of pastures new will be amply rewarded by a visit to Denmark, and he will find there that his country and his countrymen are regarded with the greatest friendliness and esteem.

II.—Notes on Hospital Administration in the United States.

By J. J. CONYBEARE, M.D., M.R.C.P.

History of Medical Schools.

In order to understand the present position of medical education in America it is necessary to review very briefly the history of the medical schools in that country. Until comparatively recent years, probably in no other country in the world were medical schools so numerous and in many cases so inefficient. Whereas in England the medical schools gradually evolved themselves around the larger hospitals, as an attempt to systematise the teaching of individual members of the hospital staff, in America medical education was in most cases carried on as a business organised solely for personal profit by groups of local practitioners, who sometimes were conspicuous neither for their professional skill nor for a knowledge of the subjects they aspired to teach. As a result of this there grew up, even in cities of quite moderate size, a large number of competing schools, all of which were entitled under their charters to grant degrees, and were entirely devoid of control from outside their own corporation. It was not until the year 1910 that public attention was called to this state of affairs by the Carnegie Report on the Medical Schools of America. This report showed that in many cases medical schools had practically no facilities for giving a training in either pre-clinical or clinical subjects, and its publication was the death-blow to the majority of the smaller schools, which either disappeared entirely or were merged into larger and more effective groups.

The scandals exposed by Mr. Abraham Flexner in the Carnegie Report produced a lively interest in medical education, which led

to the endowment of medical schools by the wealthy, or in some cases to their maintenance by the State as part of a State University. About the same period, and indeed earlier, the influence of Germany began to make itself felt, and schools were modelled on the lines of the Northern Europe institutions, which were much visited by the leaders of medical education in America. The result has been the adoption of the full-time system of professors and associate professors, not only in the pre-clinical subjects, but also in many schools in the clinical subjects also. Teaching of all branches of medicine has tended to fall more and more into the hands of the professor and his associates, so that in many schools comparatively little contact is established between the practising physician and the student. This movement towards a full-time system has to a considerable extent been advanced by the authorities of the Rockefeller Foundation, who have done so much to support medical education both in the United States and elsewhere.

In any consideration of medical education in the United States it is essential to grasp the fact that there is no central body controlling medical practice in any way comparable to the General Medical Council in Great Britain. The University degree of Doctor of Medicine does not entitle its holder to engage in practice of any kind. In order to do so he is required to pass the qualifying examination of the particular state in which he wishes to practice. In consequence, although the medical schools are fully alive to their responsibilities, they find themselves free to model their course, either pre-clinical or clinical, in accordance with their own ideas, and they are content to leave to the state the responsibility of deciding whether their graduates are sufficiently well equipped to be allowed to practice on the public. In a certain number of States it is not considered enough to have the M.D. degree of a University, however distinguished it may be, and under the State regulations a candidate for their qualifying examinations is compelled to spend at least a year in a hospital acting as an "intern" or house-officer. Under present conditions it is probably true that nearly 95 per cent. of medical graduates spend a year as interns before going into medical practice, though to do so is obligatory in only a comparatively small number of States. The result of this is that medical schools tend to rely on their graduates obtaining the major part of their practical experience during their internship rather than during the ordinary curriculum for the M.D. degree.

Medical Students.

The average age of the medical student in the United States is considerably higher than in England, owing to the fact that all schools require a minimum of two years of college work before the medical curriculum is started. Many schools such as Johns Hopkins and Harvard insist on an Arts degree obtained by four years of university study, thus raising the ordinary age for admission to the medical school to between twenty-two and twenty-three. With the medical curriculum lasting four years and an internship period of at least one and often two years, it is unusual for doctors in the United States to be in a position to start earning a living much below the age of thirty. There is a growing feeling among both the students themselves and the general public that the medical course is unduly prolonged, and that if the supply of medical men is not to be allowed to fall below the requirements of the country, some re-arrangement of the curriculum will be necessary under which a man may be enabled to gain financial independence at a more reasonable age.

As a result of personal contact with students I was much impressed by the fact that taken as a whole they are considerably more mature than the average English student; this applies both to their general behaviour and their attitude towards their medical work, which they regard very much more seriously than does the student in England. Anything in the nature of organised games is unknown, and few students take any exercise at any rate during the academic year.

The better-known medical schools have many more applicants for admission than vacancies, and select their students with considerable care. This is done by getting confidential reports on the candidates from their colleges in addition to a personal interview. The present tendency is to cut down the number of students. Thus at Johns Hopkins the admissions are now limited to sixty-five men a year and at Harvard not more than a hundred are accepted in each class. During the first two years of the medical course any students who fail to come up to the expected standard are ruth-

lessly dismissed from the school, and either have to give up medicine entirely or try to get into a school which is less exacting. A student who survives the first two years is rarely known to fail in obtaining his M.D. degree at the end of the fourth year. In fact it is so much a foregone conclusion that appointments for internships for the following year are made many months before the student graduates.

Most medical students are tolerably well provided for financially, though in some of the state universities, particularly in Canada, a considerable proportion of students spend the three months of summer vacation in some remunerative occupation, such posts as waiters, chauffeurs, and farm workers being readily obtainable in the summer.

Teachers.

Needless to say in the pre-clinical subjects consisting of anatomy, physiology, pathology, and pharmacology all the teachers are on a full-time basis, the heads of the departments being university professors. The number of associate professors, associates and instructors is truly remarkable to one accustomed to English medical schools; as an example I may cite the anatomical department at the Johns Hopkins on the staff of which there are two professors, two associate-professors and nine other teachers of lower grade, a total of 13 to deal with 65 students. The same thing is true of other pre-clinical sciences; physiology has a staff of six, physiological chemistry of four and pharmacology of seven, while pathology gives full-time employment to no less than 15 teachers. Similar conditions prevail elsewhere, though perhaps the number of teachers is rather smaller in other schools.

With such large staffs and the comparatively limited number of students there is ample opportunity for research work in the pre-clinical sciences. This is especially true of institutions such as the Johns Hopkins and Harvard where the teaching work in any particular subject occupies only a limited number of weeks in the year. The routine teaching work probably does not occupy more than a third to a half of the time of any particular teacher.

As regards the teachers in the clinical subjects there are wide variations between different schools. I propose here describing the conditions at the Johns Hopkins, as this differs most fundamentally from the British medical schools, and is the example par excellence of the full-time system. The ultimate aim of the Johns Hopkins school is to have a University professor with full-time assistants in charge of all the various clinics. At the present time partly owing to lack of funds, the full-time system applies only to medicine, obstetrics, pediatrics, and psychiatry; very shortly however the surgical and the ophthalmic clinics will be placed on a similar basis.

For the sake of simplicity the organisation of the medical clinic may be examined first. In charge of the clinic there is the professor of medicine, who holds a full-time university post and also occupies the honorary position of physician-in-chief to the Johns Hopkins Hospital. As physician-in-chief he is responsible to the Trustees of the Hospital for all patients both in the wards and in the medical dispensary; in his capacity as professor of medicine he makes all arrangements relating to teaching and examination of students as regards the portion of their curriculum alloted to medicine. The professor is allowed to see private patients in a consulting room in the hospital and may take them into the private wards; fees at ordinary rates are charged, but the proceeds are paid automatically into the medical school funds. Under no circumstances is the professor allowed to retain any fees from private patients.

To assist the professor there are seven associate professors, who like himself are on a strictly full-time basis. Of these some are in charge of special departments of medicine, such as tuberculosis and syphilis, others work in the general medical wards and in the laboratories attached to the clinic. But in addition to these full-time men there are also six associate professors of clinical medicine and thirty associates or instructors in clinical medicine, all of whom are part time only, relying, in the main, on their private practice for the earning of a living. The total staff of the department of medicine at the Johns Hopkins may be summarised as follows :—

I. Full-time Teachers (total 19)—
- 1 Professor of Medicine.
- 7 Associate Professors.
- 2 Associates in Medicine.
- 9 Assistants and Instructors.

II. Part-time Teachers (total 36)—
- 6 Associate Professors.
- 10 Associates in Medicine.
- 20 Assistants and Instructors.

With a staff of fifty-five teachers for about an equal number of students it is obvious that the amount of work done by each individual teacher must be very limited. In actual practice the whole of the clinical teaching of students during their period as medical ward clerks is in the hands of the professor himself and two or three of his associate professors, who, like himself, are full time. All the part-time teachers work in the Medical Dispensary, but, as may be imagined from their large number only a few play any appreciable part in the teaching of the student.

The professional status of the visiting clinical staff varies very greatly. The more senior associate professors of clinical medicine are consultants in practice in the City of Baltimore, but well known far beyond its borders. The instructors and assistants are also in practice in the city, but in most cases are younger men often engaged in what is more or less general practice. Among the full-time staff the age and status of the associate professors is very variable, but most of the associates and instructors are recently graduated men.

The teaching staff in the other departments which are organised on the full-time professorial basis are essentially as described above; in psychiatry, however, the number of part-time teachers is very small, and in pediatrics the whole staff of twelve are full-time in the strictest sense.

As has already been said, the Johns Hopkins is the school where at the present time the full-time system has been most developed. At the other end of the scale there are medical schools organised on the British plan by which all the clinical teaching is in the hands of an honorary visiting staff, who are engaged in private practice. Between this type of school and the Johns Hopkins there are all grades. Thus at Harvard Medical School the medical teaching is carried on by three professors of medicine who are all on a part-time basis, receiving salaries from the University, but also being allowed to supplement their incomes by private practice. The latter is carried on at the hospital and the professors are not allowed to maintain consulting rooms elsewhere. While there is no written agreement as to the amount of private practice allowed, it is understood that the professors themselves will not permit their private work to interfere with their teaching duties. This system has been in vogue at Harvard for some years and apparently works very satisfactorily. It not only applies to the three professors of medicine, who are in charge of the medical clinics at the three teaching hospitals in Boston, but a number of their assistants are on the same basis.

Much the same plan is in vogue at the Presbyterian Hospital in New York. The professor of medicine is on a similar basis to the Harvard professors and he has as assistants a number of associates to whom are paid salaries, which, though small, are just sufficient to live on. There is no essential difference between the position and status of such associates and that of registrars or medical assistants at Guy's. At Toronto the professor of medicine is full-time with the exception of two hours every afternoon during which he is permitted to see private patients in a consulting room provided for him in the Toronto General Hospital.

In a number of other schools the professors of medicine are strictly full time as at the Johns Hopkins, though there are not so many full time associates. This is the system which is being adopted in the new University at Rochester and at the new Vanderbilt University at Nashville.

The Full-Time Professor.

I have already attempted to sketch in outline the organisation of the medical clinic at the Johns Hopkins Hospital, as an example of what the strictly full-time system means when applied to the teaching of clinical medicine. It now remains to fill in a few gaps in the picture and to consider further the advantages and defects of the system.

In the first place the position of the professor is indeed a powerful one. With him and with him alone rests the authority to appoint and dismiss not only the full-time members of his staff, but also all the honorary visiting staff, who may perhaps be his seniors by many years, and whose position might have been deemed secure. Yet in theory at any rate the whole of the staff of the medical clinic, paid or honorary, are under his direct jurisdiction. On the appointment of a new professor all the staff must resign their posts, to be re-appointed at his pleasure. As physician-in-chief he controls the management of both in-patients and out-patients and is directly responsible both to the trustees of the hospital and to the law for the treatment of every patient. It is the professor who has the decision of what part the visiting staff are to play both

as regards patients and students, whether they are to do ward rounds or work only in the out-patient department. It is he who can decide on the disposition of patients in the wards, the arrangement of special clinics or the class of case which is to be admitted. Theoretically at least he is limited only by the financial grant made by the school to his department.

It must not be thought, however, that the professor is as great an autocrat in actual fact as he is in theory. Though on the appointment of a new professor the visiting staff may resign, they can confidently expect to be asked to continue to give their services to the hospital and school. Probably if a thoroughgoing house-cleaning were attempted the professor would find unexpected difficulties in asserting his autocracy. In actual fact it is remarkable how smoothly the system appears to work. Although the professor is able to control the general policy of the school and hospital there is no evidence of interference between doctor and patient either in the wards or the Out-Patient Clinic.

Unpalatable as the idea of a physician-in-chief may be to English ideas, it cannot be denied that the system has its advantages. Although as has been pointed out there is plenty of criticism levelled against the strictly full-time professional system, yet even its most vigorous opponents are ready to admit that the professor and his staff, rendered more or less free from the necessity of maintaining a large private practice by their university salaries, form a nucleus around which teaching and research may centre. Many of the regular institutions in American teaching hospitals, such as staff rounds, clinical pathological conferences, clinical radiographic conferences, and journal clubs are only rendered possible by the presence of one or more clinical teachers who have the time and energy to devote to the organisation of such undertakings. Moreover to attain such results it is not necessary for the professor and his staff to be entirely debarred from the undoubted advantages that are derived from private practice. The satisfactory results attained in Boston where the professors are allowed consulting rooms in their own hospitals prove that the part-time system can function adequately. While leaving the professors free to add to their experience and incidentally to their incomes by private practice, they are saved the waste of time and expense involved by journeys to consulting rooms often far distant, and are enabled to centralise all their work in the hospital.

The full-time system also forms a link between the hospital wards and the laboratories. Both are part of the medical clinic. At the Johns Hopkins the associate professors divide their time between the wards and the clinical laboratories, where, however, they are not burdened with masses of routine investigations, such as Wassermann tests or blood chemistry determinations.

Moreover, with the department of medicine under the direct regulation and management of one person, the facilities for investigation and research are much improved; as an example the electro-cardiographic department is under the charge of an associate professor aided by a skilled technician; any member of the staff who requires an electro-cardiogram has only to fill up a request form and the investigation is carried out, tracings and a report presented. If this be compared with the system at Guy's, where the electro-cardiograph is nobody's child and is perpetually out of order through the well-meant but unregulated efforts of amateurs, the advantages of centralisation of control are obvious. Or take again the question of such an investigation as basal metabolism; at Guy's it is usually necessary to call in the aid of the professor of physiology and his assistants who come over armed with bags, masks, and meters; at the Johns Hopkins basal metabolism determinations are in the hands of an associate professor and a technician, and can be done whenever required without trouble or interference with the routine of other departments. The same systematisation of clinical investigation is found in all American hospitals and even to a more marked degree in such institutions as the Mayo clinic.

The Cost.

The cost of medical education in America is naturally immensely above that in London. At the Johns Hopkins the annual budget for the medical school is now in the neighbourhood of 550,000 dollars, or about £115,000 sterling. Of this enormous sum only about 14 per cent. represents the fees received from students. The Harvard budget is almost exactly the same figure and even the less expensively conducted schools, where the full-time system is not so completely established, such as Washington University at St. Louis, cost well over 350,000

dollars. Compared with these figures the expenditure of schools such as Guy's or St. Thomas's with budgets of less than £30,000 a year, seem very small, particularly when it is remembered that they train many more students and also have to undertake the teaching of pre-medical subjects, such as chemistry, biology and physics, a burden which is not carried by the American schools.

Although a part of the greater expenses in America are explicable by the general increased cost of living and commodities in that country, this factor does not account for more than a very small amount. The full-time system applied to the clinical branches is necessarily expensive if first-class men are to be obtained for the professional posts. The salary for full-time professors is usually 10,000 dollars a year and for associate professors from 4,000 to 6,000. Even at these figures considering the cost of living the salaries cannot be considered as in any way excessive. In fact many of the full-time posts are held by men who are able to supplement their official income by private means.

In addition to expenditure on salaries to the professional staff, a great deal of money is required for the upkeep of the laboratories and their staff of technicians, stenographers, and secretaries. A proportion of the latter, however, is defrayed from hospital funds. Research is greatly facilitated by the ample provision of technicians for the performance of all routine work, such as blood chemistry, electro-cardiography, basal metabolism, bacteriology and serological investigations.

(*To be continued.*)

The Unconscious: Its Future and Relation to Medicine.

A Paper read to the Physical Society, on Nov. 4th, by MR. C. P. BLACKER.

THE literature dealing with the various activities and aspects of the "Unconscious" has swollen since the war to such proportions that it has been outside the capacity of any single individual to keep up with it. In the course of the last two years my acquaintance with its more recent development has been of the most cursory nature, and furthermore for the last fortnight I have been on a holiday entirely separated from books. The paper which follows, written during this time, is therefore subject to these two shortcomings for which I hope I may be forgiven.

In the course of my medical studies here, I have found that little stress has been laid upon those recent developments of Psychology which, in addition to modifying the orthodox conception of the structure of the human mind, has had an important bearing upon the ætiology and treatment of certain forms of mental disorder. When asked, therefore, by Dr. Shaw, a month ago, to read a paper to this Society, I felt that this subject might, from its unfamiliarity, be of interest.

In case the paper may seem disjointed and inconsecutive, I shall preface it by outlining the ground I shall cover. I shall begin by trying to justify the general conception of an unconscious mind, which appears to many to involve a contradiction in terms; I shall then try to indicate the limitations to which the province of Dynamic Psychology is subject, and which make it in my opinion doubtful whether anyone is entitled to call it a "Science" at all; I shall then describe briefly what I conceive to be the racial basis for the unconscious, and shall follow this by a description of the individual basis for it, as laid down in early life.

Next I shall proceed to a consideration of the four more important theories of the function and nature of this part of the human mind. I shall then consider the relation of the subject to medicine, and describe what I think should be the attitude of the medical man towards it.

And lastly, I shall embark upon a realm of pure speculation as to the ideas which I feel are forced upon us as to the potentialities of the human mind, and the line of its possible development in future ages.

In the first place it should be clearly realised that the unconscious mind is a *hypothesis*, which, by nearly all competent psychologists is held best to explain certain phenomena. I think it can be said that the hypothesis came

into existence when people began to doubt the demonological causation of disease. When this conception held vogue, as it did to a certain extent in Biblical times, the human body and soul were held to be not only distinct, but separable. The soul was supposed to inhabit the body as a man might inhabit a house, which he could leave when he wished. But if a man leaves his house untenanted, it is clearly possible for some one else to enter it and take possession, and the universe was held to be teeming with spirits, more or less evil, who were at any moment ready to take possession of a person's body, even at times against the will, and in spite of the resistance, of the soul that originally belonged to that body. The demonological explanation of certain phenomena has not yet been entirely relinquished as is testified by the immense vogue of Spiritualism since the war. But its relevance to certain forms of disease such as hysteria and epilepsy is not now believed in by many people.

It was, perhaps, the phenomena of trance and hypnosis to which attention was first drawn by Mesmer that laid the foundation for our conception of the unconscious. It is unnecessary to recapitulate these here. It is clear, however, that belief in the existence of a region, or part of the mind distinct from the conscious part is more or less forced upon one by the phenomena here revealed. Thus, if when the somnambulist gets out of bed and performs a series of complicated acts of which, on waking, he has no recollection whatever, and of which he is totally unaware, or unconscious, it is clear that during the trance another part of his mind than the conscious part was active. And the fact that this unconscious part of the mind may play a part in determining behaviour is demonstrated from the phenomena of post-hypnotic suggestion.

Thus, if to a subject under hypnosis the suggestion is made that ten and a half minutes after waking, he will stand in front of the fireplace, and then go to a certain drawer into which a box of matches has been placed, take the box out, light his pipe, return to the fire, stir it, and then touch his toes three times, remembering the while nothing whatever about the suggestion that has been given him, he will, if he is a good subject, fulfill the injunctions to the letter and to the second, as I have seen done. And if, after this, you were to ask him why he had done it, he would tell you that he happened at that time to want a smoke, that he knew somehow that there was a box of matches in the drawer, that he was cold and so poked the fire, and then felt that his leg muscles were getting stiff and that he would like to stretch them. In other words he would give you excellent reasons for all he did. But they would be "rationalised reasons," and of course, in the ultimate sense entirely false ones, the essential mainspring of his behaviour having been a suggestion operating in a region of the mind of which, at the time, he was not conscious. A simple experiment like this is rather apt to disturb one's ideas as to the nature of human motives, and especially one's confidence in the dominance of that faculty of Reason upon which we men sometimes plume ourselves in comparison with the other sex.

The phenomena of alternation of personality and of what Morton Prince called "co-consciousness" lead in the same direction, but there is no time to consider them here.

From this all too brief survey it will be seen that though we ourselves cannot at any given moment be conscious of our "unconscious," its activities can, nevertheless be very obvious to others, and further, as we shall see later, it is possible under certain circumstances to become acquainted with parts of one's mind of which previously one had been unconscious. Though superficially the term "unconscious mind" seems exposed to the criticism that it involves a self-contradiction in so far as nothing can be known to be "mind" unless it is *conscious*, yet it will be seen that the conception is one which has been forced upon people by certain phenomena, and it is incumbent upon critics of the term to invent some other hypothesis which is more suitable. This, to my knowledge, has not yet been done, and to-day the conception has with a few exceptions been universally accepted everywhere.

I now turn to what seem to me to be the limitations of the New Psychology.

Since its invention the word "Psychology" has been given many different definitions, and its separation from philosophy, together with its elevation to the dignity of a Science is of comparatively recent origin. It is a little difficult to know exactly when a subject becomes a science, and there are many different conceptions as to the meaning of this word. The conception of a science which I am about to advance is the one which seems the most satisfactory to myself, and is one which makes me feel it to be doubtful whether the so-called

"*New* Psychology" or the psychology which seeks to give an account of the unconscious, is a science at all. I shall argue later that in its therapeutic application to medicine it more nearly resembles an artistic than a scientific function, or at any rate that it exercises a part of the mind where scientific and artistic activities are closely allied.

There are two stages or phases in which a science can exist. They can, for convenience, be called the descriptive and the theoretical phases. A subject becomes a science of the first or descriptive category when a certain number of detailed facts, capable of organisation into a body of knowledge become known about it by the method of observation. Biology was a science at this stage in the time of Linnæus, as was Genetics before the time of Mendel. A subject becomes a science of the second or theoretical category when theories are built upon these facts of such a kind as will cover them all and will enable us to foresee facts of an allied nature which we do not yet know. To this certain addenda must be made.

In both phases the facts, the methods of observation by which they become known, and the theories invented to "explain" them must be capable of corroboration or refutation by other observers using similar methods. Thus, a medium, or a person possessed of second sight, might build up a collection of detailed facts, and organise them in a very perfect body of knowledge, but they would be based upon a method of observation commanded uniquely by him. We should not call the subject matter thus collected a "Science" since it would not be open to others to corroborate or refute it by similar methods.

A second addendum, which I feel is necessary, is that the subject matter of science must have a certain degree of stability, or permanence. The following consideration will illustrate this. A modern Bradshaw is a collection of detailed facts, organised into a remarkable body of knowledge. But it is not a science. A treatise on Transport in the Middle Ages would be a contribution to History rather than to Science. But a good treatise upon Transport in Egypt or Assyria 3,000 years B.C might well be regarded as a valuable contribution to the Sciences of Egyptology or Assyriology. The reason for this is that the remoteness of the Empires in question confers upon them the status of a Science. Their subject-matter now has much the same permanence and durability as has the Science of Palæontology.

A third addendum postulates a certain degree of uniformity of subject-matter, or uniformity of change therein. By a "law," in ultimate analysis we mean merely that in the experience of the human race certain sequences take place with uniformity. If we let go of a piece of lead, we find with invariable uniformity that it falls. We therefore say that it "obeys the *law*" of gravitation. But if, tomorrow, we were to find that pieces of lead flew up to the ceiling when we dropped them, our "law" of gravitation would suffer a blow. And its validity as a law would be still further impaired if, at frequent intervals in the past, the race had found that for no accountable reason pieces of lead, or other objects possessing measurable weight, behaved in this way. In a world where nothing remained stable, and where there was no discoverable uniformity in the way changes took place, there would be no laws and no science.

Now there are two respects in which the "New" Psychology is removed from the acknowledged Sciences. The first is that its subject-matter, the human mind in its relations to life, present little uniformity. No two people have the same innate characters, and no two people are environmented alike. It is therefore in the highest degree dangerous to formulate "laws" or "principles" which are here expected to have universal validity. In the second place the mode of interpretation of a given piece of subject-matter—in this case the emotional experiences or behaviour of a given individual—depends more upon the disposition of the investigator than that interpretation does in any field of science. In fact the degree to which interpretations may vary with the preconceptions of investigators, as will be seen later, has led many people to doubt whether a really detached and valid interpretation can be made at all.

Having recognised these shortcomings in the subject, I will now proceed to a review of the four schools of thought in regard to the unconscious which have held vogue.

It will be convenient to consider those theories in the order of their creation. The first can be said to be the product of the activities of the Society for Psychical Research, and to have little relation to medicine. I refer to the theory of the "*subliminal*" mind as advanced in his

books by F. W. H. Myers. The phenomena, the investigation of which was responsible for this conception, were very varied. They included those of disintegration of personality, genius, sleep, so called sensory automatism, trance, possession and ecstacy, hypnotism, and spiritualism.

For Myers the subliminal mind seems to have been largely a medium or channel for the reception of what he called "supersensory phenomena." He advances evidence for belief in telepathy, telæsthesia—or the perception of distant events which cannot be communicated through the mind of another person, such as water finding—and retrocognition, or intuitive knowledge of past events. The classical instance of this last is found in a book called "An Adventure." It was written by two English ladies who, while walking in the grounds of Versailles found themselves among entirely novel surroundings where they lost their way, and met certain rather surprisingly dressed people. Elaborate and painstaking investigations subsequently revealed the fact that the gardens they had seen were those that existed just before the French Revolution in the time of Marie Antoinette. The authors of the book are well-known, and it is generally believed that they are incapable of having deliberately falsified or invented their experiences. For my part I hold no opinion on the genuineness or otherwise of the book. I merely quote it as the classical example of the phenomenon of retrocognition which is one of the "supersensory" modes of knowledge quoted by Myers. His "subliminal" mind is essentially a region through which we are brought into touch with realities, material as well as spiritual, which are inaccessible to our supra-liminal, or conscious, minds, and which to this extent is "higher," "more spiritual," or biologically more evolved" than the conscious mind. I must confess to a certain vagueness as to the meaning of these terms, but I introduce them in order to stress the contrast between the status of the subliminal mind of the S.P.R., and that of the subconscious or unconscious mind of the New Psychology, which is held to be both *more primitive, more infantile* and *less highly evolved* than the conscious mind.

I do not wish to spend any more time in considering this topic partly because I am not extensively acquainted with the literature of psychical research and partly because the conception has little relation to medicine, which Dr. Shaw informs me must be my theme in this paper. So I will now proceed to a consideration of the unconscious mind of the "New" Psychology.

This conception essentially takes into consideration the mode of development of the adult human mind both from the pre-human stage of racial evolution, and also from the infant unborn as well as born. In order to understand the full significance of this I have thought it best to give a brief account of both these processes as viewed by the New Psychology.

In the first place we have to try to picture to ourselves the condition of our human ancestors at the stage when speech was not evolved, agriculture unknown, and the uses of fire undiscovered. Neanderthal man perhaps lived in this stage, there being anatomical reasons for supposing that speech in the developed sense was impossible for him.

We must imagine also that the animal cortex was at that stage of development at which its owner was first beginning to ask himself questions such as: "Where did I come from?" "Where did the race come from?" "Where do I go when I fall asleep?" "Where do people go after death?" These are questions which, so far as we know animals do not ask themselves. Yet to us they are urgent problems. There must, therefore, have been a moment in the development of the race, and of the cortex, when these questions first occurred, and this is the moment I am asking you to consider. A picture of this stage has been drawn by Atkinson in his book "Primal Law," which I observe has been accepted in outline by Freud in his recent book on Group Psychology. The unit of social organisation is here described as being the clan—a sort of enlarged family, consisting of a ferocious, jealous and powerful male, as "horde leader," with an assortment of younger and weaker males, females of various ages, and children, the rearing of which to adulthood was a difficult, in fact a rarely accomplished task.

Agriculture being unknown and fire undiscovered, they subsisted on roots and berries and what animals they could kill, which they ate raw.

We can picture them battling against the advancing and retreating ice of the glacial periods, living precariously in an unbountiful and forbidding world. They lived probably at war with other clans, threatened by carnivorous

animals that then abounded, and surrounded by a Nature that was cruel and unrelenting. In the background of their minds must have been a perpetual fear of the future, of enemies, of the weather, of food shortage, of ghosts, and, in very difficult times, of each other. On the outskirts of the clan hovered the decrepit and deformed, who, unable to capture their prey led a furtive predatory life, ready to fall on children or anything weak, probably prepared to eat carrion, and perhaps even digging up graves to devour the dead. Now and then. in otherwise inexplicable and perverted aberrations we come across throwbacks to such types as are described in his book by von Krafft-Ebbing.

The conception of the clan or horde was reached by Atkinson in an attempt to deduce from existing customs and beliefs of savages such as Totomism and Exogamy, the form of the primitive social unit. It finds favour with Freud because he has found a basis for it in the neuroses of many of his patients. The conception of the tyrannical, fierce horde leader plays an important part in psycho-analysis. Atkinson pictures this being as possessing all the females, of which he is fiercely jealous. He only tolerates his sons or any younger males by reason of the strength and cohesion which they impart to the clan; yet he hates them for he knows that in time he will be ousted or killed by one of them. Sexually starved, the young males hate him in return, and secretly wish to kill him and possess the females which during his heyday are his monopoly. It should be clearly realised that there is no positive evidence for the existence of this particular form of clan or horde organisation. In my opinion it is as likely as not to be true of the ancestors of those races that had to compete against very adverse climatic conditions involving cold. It seems to me unlikely to be true of the ancestors of tropical and subtropical indigenous races, such as the Australian aborigines. I quote it without expressing any conviction as to its truth, as having a bearing upon a theory of the unconscious which we must consider.

At a certain stage the question must have occurred to our Pliocene ancestor: Where did I come from? The answer is obvious—out of a woman. Where did she come from?—Out of another woman before her—and so on backwards. But the primitive mind baulks at the idea of infinity. The question arises: Where ultimately did the race come from? What we ask ourselves, is the most obvious, the most probable answer that a savage would give to this question? Without doubt it is: "Out of the ground or some prominent feature of it." In accordance with the theory of "*Environmental Origin*" it is found that races living near lakes believe their ancestors came out of the lakes, those near water-falls out of the water-fall, those near the sea out of the sea, etc. And what for primitive pre-agricultural man is the most prominent feature of his environment? Clearly the animals therein. It seems to me that in this theory of environmental origin we have the basis laid for the phenomenon of totemism in accordance with which all savages believe themselves mystically connected with an animal, a plant, a rock, water, or some feature of their environment, which feature is their ancestor and is sacred to them. Another question our ancestor must have asked himself is: What makes the wind blow, the water run, the rain fall, the trees grow. Along intellectually lines of least resistance, the immediate answer is—a spirit. The basis is laid here for the animistic conception of nature and of natural phenomena, expounded by Taylor. The savage is notoriously unable to distinguish the real from the imaginary. What to the savage is the most obvious explanation of the dream, the nightmare, say, of a child who dreams of a much feared person who has died? Obviously it is that he has seen the spirit of the person. Some savages carry their inability to distinguish between the real and imaginary to amazing lengths. Thus, Levy-Brühl describes how an island savage dreamt of seeing his sister killed by another man. He concluded that the spirit of his sister had been killed as he had seen in his dream, and so he promptly killed the other man without even first finding out if his sister was alive. Thus, in the imagination of the primitive the world teems with spirits which are evil in proportion as his life is difficult. It is only when man has acquired a mastery over his environment such as to stabilise life and banish the manifold terrors that haunt wild animals and savages, that he can abolish the God of Fear that demands appeasement, propitiation, and sacrifice, and discovers a God of Love. It is even stated that there accompanied the reversion to primitive conditions brought about in Russia by the recent famines, a reversion to a belief in such a God of Fear

to whom sacrifices were offered. According to the "New Psychology" this is the kind of soil in which, racially, our sub-conscious minds are rooted.

It is necessary here further to attempt to describe a mode of thinking which probably preceded the development of a cerebral cortex, and of speech, and which probably determines the form of dreams. Let us consider the process by which habits are learnt among mammals. What is the process by which fear of men will be engendered in the mind of, say, a hare that has been shot at when young, and missed. The experience is divisible, for our purpose, into two processes. The first is a mere sensory or cognitive process—the vision of a human shape pointing something which spits fire and smoke, the auditory impression of an explosion, etc. The second is an emotional, or, in the special terminology, an *effective* process, i.e., terror prompting to mad flight. In its subsequent life the hare might easily forget about the actual incident, more easily, probably than we would, since it has a smaller cortex; but the association of the sensory impression of man with terror, will survive the disappearance of detailed memory and will exercise an important influence on the subsequent behaviour of the animal under certain circumstances. If at a later stage in its life one could ask the hare *why* it was frightened of man, it would, probably, be unable to tell.

Now let us consider an example nearer home. We have all experienced that unpleasant quickening of the pulse which accompanies the entry into the Examination Room prior to the distribution of the paper on which so much is to depend. On the sensory side is a vision of a crowd of anxious men and a few wild-looking women walking confusedly upstairs and entering a room filled with desks. On the affective side is a sense of unpleasant apprehension mixed with impatience and irritation, and certain disagreeable feelings in the lower abdomen.

We are probably unconscious of the actual *quality* of the emotion at the time, and will probably remain so afterwards unless we happen to be introspective by disposition. But in our subconscious a link between the sensory impression and the affective process will remain. If on a future occasion, we have to submit to an ordeal about which we *feel* in the same way as we did about the examination—say, for example, the process of getting married, the *quality* of affective experience—namely unpleasant apprehension mixed with impatience and irritation—will probably be closely similar to that which was evoked by the previous situation. It might then happen that in light sleep this pre-occupation would continue to obsess our minds, and we might wake up having dreamt that we were one of a crowd of anxious looking people walking up steps at the top of which something unpleasant was about to happen. We probably should not have the faintest idea what the dream meant or what it referred to. It would be clear, however, that the architecture of the dream would be the product of a *qualitative* similarity between the two affective processes just considered. Its apparent meaninglessness would be the product of our not being conscious of this qualitative similarity, and upon the sensory impression of the crowd, etc., having faded from the panorama of our more vivid recollections. The mode of thinking to which I refer as being primitive and characteristic of dreams therefore consists in the tendency of every affective experience, whether pleasant or unpleasant, to dramatise itself in the dream in terms of the sensory impression with which qualitatively similar affective processes previously experienced, were originally associated. I remember in the autumn of 1916 reading William James' "Varieties of Religious experience" at a time when the Battle of the Somme was at its height. In common with most people in the war I felt a strong desire for some inner touchstone of solidity and certainty to carry one through those extraordinarily difficult times. In this book I found something approaching it. I remember reading it in a tent by candle light before going to sleep. When I actually fell asleep I dreamt that I was in a deep trench, newly revetted with wide traverses, where I felt protected and safe. Actually I had gone over a reserve line a week before that resembled the trench I had dreamt about. But I was entirely unaware that the sense of physical security against possible bombardment that I had experienced in this trench had anything in common with the sense of psychical security from the bombardment upon ones moral resources unremittingly made by the war, which reading this book had imparted to me. Yet I had gone to sleep in possession of a sense of moral security which dramatised itself in sen-

sory terms in my dream as a deep and safe trench. The interpretation of most dreams consists in finding out to what emotional context in the life of the dreamer, the manifest dream content, that is to say the dream in its sensory aspect, refers. The more the emotional context, or the latent content, is complex and deeply rooted, the more complex and difficult to unravel will the manifest dream content be, and the more meaningless will it seem. It is in terms of some such elementary mode of thought that most mammals profit by experience, and it is in such terms that our unconscious mind expresses itself. And between this mode of thought and that rationalised process conditioned by the cerebral cortex and power of speech possessed by man, there still exists a lack of harmony to which the meaninglessness and incomprehensibility of dreams and neuroses are attributable.

So much for the racial basis.

I now turn to a consideration of the development of the mind from babyhood to adulthood in the life of the individual. Only those characteristics of major importance can now be considered. It is of course impossible to say whether anything approaching consciousness is possessed by the child in the womb, though certain psycho-analysts have answered this question in a very dogmatic affirmative. What is the essential contrast of this life with that after birth? The essential contrast is that before birth life is uniform; after birth it is characterised by what we may call "alternation states." Let us try to picture the life of the fœtus. It lies in a world of darkness bathed in warm waters. It knows no alternation between hunger and satiation, between warmth and cold, between the desire to excrete and the satisfaction that follows that act. It has never seen light and its other senses are almost as unstimulated as its sense of vision. Nourishment comes to it in an unintermittent flow over which it has no control, through the cord which attaches it to the mother Its life presents a monotony, a uniformity, to which a parallel can only be found in the life of certain endo-parasites that lie bathed in the nutriment upon which they subsist. From such an existence, at birth the child is projected into a world of coldness where every sense is assaulted by a torrent of impressions. The moment when the scissors cut through the umbilical cord, signalises the inception of a new life characterised by the genesis of *alternations* between needs and their satisfaction—a need of food, a need of warmth, of sleep, a need to excrete.

In the mind of the child these needs are not at first clearly differentiated. It is important to understand this conception of differentiation of feeling. In the same way that the fertalised ovum contains in itself the potentialities of all the other cells in the body, which slowly differentiate out into their specialised and final form, so do the manifold desires, aspirations and wishes of the adult differentiate from this primitive unspecialised need for food, warmth, protection and love.

In the first stage of life all these needs are satisfied by the mother who provides shelter, loving care, warmth and food from her own body. For the child the mother at this stage is perfection. In most children this primitive need for that which the mother provides *differentiates* into other needs and interests as they grow and begin to take an interest in their environment. In others the need remains semi-consciously latent till adulthood, long, that is, after the mother is able to satisfy it. In this shape the need may find satisfaction in a form of Religion which is best realised in Roman Catholicism with its powerful compelling Mother symbolism. To the Mother Church, with its Madonna, its perfection, its infallibility, its message of comfort to its children, with the personal note provided by the hierarchy of Saints, the convert can turn with the same appealing trust, the same sense of reciprocated understanding and love as the child turns for to its mother. This attitude of infantile residual longing, incapable of satisfaction by the events of later life, and turning its possessor always away from the world which remains to him perpetually wanting is one of the neuropathic diathesis. For the present purpose it is important to realise the influence on later life which events in early childhood can have by thwarting or deviating this undifferentiated feeling. Such a deviation would be comparable to damage done to the embryo at an early stage of development. The original injury might be slight, but its consequences upon the later differentiated tissues would be manifold and complex. Much of the technique of Psycho-Analysis consists in tracing various kinds of neurosis through a jungle of intermediate distortion of feeling and reaction to some shock or disharmony in early life.

(To be continued.)

Correspondence.

Lysol.

SIR,—I extract the following from a paper by E. F. S. Dodd, Guy's GAZETTE, page 77, February 14th, 1925:—

"I suppose there is no antiseptic more generally used than Lysol both by medical men and dental surgeons; yet I am afraid there are on the market to-day many so-called Lysols which are to all intents and purposes worthless. Lysol, to be of any use, should contain 50 per cent. cresols, but as there is no definite standard laid down by law, this percentage is not always adhered to by the unscrupulous manufacturer. Lysol is put on the market with 3 per cent. cresols against the usual 50 per cent. content, so that the liquid may be sold by grocers and oilmen. I think the average practitioner would know better than to purchase his Lysol at a grocer's, but I mention the *fact* to bring to your notice the strange state of affairs which exists at the present moment."

I write to ask the author whether he can prove these points, for if so, surely it is the duty of Guy's Hospital authorities to bring these facts to the notice of the Government Health Authorities. Probably it is true that practitioners do not buy their Lysol at grocer's, but what of the women about to be confined—and the nurses or midwives? The whole subject should be thoroughly investigated; worthless Lysols should be "named," and criminal proceedings should be taken if necessary.

If true, then we need not look further for a potential cause of puerperal sepsis. I hope the author will reply, giving the names of the makers of worthless Lysol.—Yours faithfully,

AN OLD GUY'S G.P.

Medicine Abroad.

DEAR Mr. Editor,—Following my recent five months' rush through Canada and the United States, I found the hospitals and clinics interesting, but I have no very novel reports to make in the GAZETTE.

The growing popularity and safety of ethylene anæsthesia alone or combined with nitrous oxide gas is worth recording.

The terribly inflammatory nature of the gas even when present in small percentages in the air, is the most marked disadvantage. I might add that the ethylene is bubbled through water to lower the risk of spontaneous combustion, and further, the metallic part of the apparatus is "earthed" by a wire connection to reduce the chance generation of sparks from static electricity.

The small use of chloroform in any anæsthetic mixture and the wide use of splanchnic, sacral, spinal and regional anæsthesia is a noteworthy feature.

To see brain operations, resections of the sensory root of the Gasserian ganglion, etc., all under local anæsthesia is very refreshing.

There is also, as Dr. Conybeare pointed out in a recent article, a vast difference from the psychological point of view between the English and American patient. The American patient wants a full and frank discussion of all the technical points of his case, whereas it has been the custom in England in the past to refrain from telling the patient any more of the technical details of his case than the absolute minimum.

Another striking difference is that practically 100 per cent. of tonsils in the adult are dissected out under local infiltration analgesia with great success.

I mention only to condemn the use of a cylinder of carbon dioxide attached to the gas apparatus in order to use the CO_2 gas to promote deeper and steadier respirations.

The pharmacology books all agree that carbon dioxide is much less toxic than carbon monoxide, but I think that by accident the CO_2 gas may be given in concentrated form with undesirable, perhaps fatal, results.

It was a great pleasure to watch Dr. Chevalier Jackson and Dr. Tucker performing bronchoscopics, irrigation of pulmonary abscesses via the bronchi with dilute mercuriochrome, etc., all under local anæsthesia.

The Laukenau Hospital and others in Philadelphia, the hospitals of Chicago, New York and Rochester (Minn.), are certainly very desirable for post-graduate study, provided always that one is adaptable to what the Americans call the "International Mind," and further, provided that one is willing to risk automobile crashes.—Yours faithfully,

GRAYDON HUME.

5, Harley Street, W.1.

Sport.

Rugby.

Guy's v. Coventry.

ON Saturday, November 14th, though foggy in town, it was a beautiful football day at Honor Oak Park, and Guy's came right into form. Coventry, a young and virile team who have done remarkably well this season, came to town with a great reputation, and one scarcely dared hope that we should overcome them. But gloomy thoughts were at once dispersed by the manner our team set about their job, and in ten minutes we were six points up—two good tries. Fellowes-Smith with a clear run had missed his pass, and Leslie had put in a very clever cross kick which only just missed an eventual score, when another good round of passing ended in Clarke dashing over by the right-hand corner flag, to be followed soon after by Steyn who accepted a high pass from Garland and romped over the line. Both places were difficult, but Hutchinson made a couple of excellent shots which only just failed to go between the uprights. Our forwards were doing extremely well; they got the ball repeatedly and Garland obtained and held the mastery of his opponent at the base of the Coventry scrum. Coventry put more life into their work and the ball was got down to our 25, where Pemberton in the centre sent a most judicious kick ahead which ended in Lole beating Leslie and Boyle in a race for the ball. By no means dispirited, Durr got his men together again, and Spence, who played grandly all through, made a fine run. Cameron and Popplewell carried on the movement and Durr completed it by scoring our third try. This time conversion followed. Splendidly our fellows set about it again, and Steyn scored a very fine try indeed, so that at the interval we stood 14 points to Coventry's 3.

The second half was full of good football, though we missed our passes with some frequency. The Coventry men had more of the play, but we could tackle as well as attack, and it would be better still if some of the team dropped the habit of going high. The play waxed very fast and a little furious; one gentleman from Coventry developed a habit of entering the scrum from the wrong side and clawed everyone he could, till Myburgh hauled him out, only to receive a punch in the face for his pains. Myburgh raised his "shade" so as to know him again. Twice we were penalised and from the first one Pemberton landed a fine goal. It was a long-distance attempt, the ball hitting the bar and going over.

Tremendously did Coventry work, but our men never flinched and Boyle at full back was perfectly sound. Spence did some fine kicking, too, but the forwards were really the great factor. Strenghthened by Durr's presence, and by the re-inclusion of Schabort and Cameron, the pack were splendid. Hutchinson would be so much more valuable could he be a little quicker. Cameron, Popplewell and Myburgh, in fact all, did their part admirably and no halves could have done better than Garland and Spence. Some of Garland's passes missed their mark, but his versatility was most marked and his judgment very sound. After a period of anxiety, we took up the running again and the last few minutes found Guy's well in Coventry's 25 and in full cry for another score, but though going very near, the end came without further addition to the total. Guy's, 1 goal 3 tries, (14 points); Coventry, 1 penalty 1 try (6 points).

Guy's have come into their own again. Hearty congratulations to the whole XV. are due for a glorious match well won.

Guy's Team.—V. G. Boyle; G. Clarke, G. Fellowes-Smith, C. L. Steyn, W. Leslie; T. O. Garland, P. D. B. Spence; J. Durr, W. H. Myburgh, G. G. Cameron, J. W. Schabort, J. W. Popplewell, W. Hops, E. W. Hutchinson, J. D. Visser.

Guy's v. Blackheath.

THIS match took place on Saturday, November 21st, at the Rectory Fields. It might be described as the "needle match" of the season. We are always anxious to play well, but especially anxious to play well enough to defeat Blackheath; and this we did by no less a margin than 5 tries (15 points) to nil. It is no mean feat to score 5 tries. You may get 15 points by penalty goals, dropped goals or placed goals. You may worry because some of the tries were not

converted, but five times over the line takes some doing, and in the doing our team did extremely well. True, one try was a "sitter," but it was scored through the excellent dash and follow-up of Fellowes-Smith, who was on top of Edmiston before he could gather the ball.

The first score was magnificent—a grand passing run from the scrum base out to Clarke, who took Fellowes-Smith's pass in full stride and was over the line like a flash.

Hutchinson's attempt to convert was good, but not quite successful. A little later the ball was kicked dead, and the drop out found Myburgh with his back to the ball. He had run back with the ball to the Blackheath 25 and turned to get his distance. At that moment the ball was dropped out a few yards. For the future our men will walk backwards to get their distance, if back they have to move.

Another drop out, and one of the forwards caught it and handed to J. Durr who sped straight through the opposition to land a fine try. This time Boyle's kick just missed.

Garland and Spence did well, and Blackheath took to rushing us, but the defence was quite sound. Once Steyn cleared the opposing three-quarters, but he kicked when a run looked promising. For about fifteen minutes Blackheath played very hard, though one regrets to point out that Stuart seemed more offside than on, and their No. 6 seemed very annoyed with us in general and Garland in particular. Our pack did not get the ball in the tight. The two outsides in the front row did not appear to help Myburgh to secure the leather very much.

Now came a glorious dash by Fellowes-Smith, but something went wrong. However, his try mentioned above soon followed. Boyle missed this conversion. Our team were now splendid, the pack quick and full of dash, a real Guy's pack. We tried passing and dribbling, and when well placed Taylor, of Blackheath, got right away on the right, but he was stopped. The tackling was thorough. A penalty against us looked ominous. We escaped this danger by Popplewell giving an S.O.S. pass in our 25. It was the second time he had done this, and it is a dangerous practice. Now came a regular "Tally Ho!" Guy's in full cry. The Blackheath "25" was reached, and from the middle of things J. Durr got the ball and again ran clean through—a splendid effort. Steyn failed with this kick and Hutchinson did not succeed in converting a try got by Visser just before the end of the game.

Teams play with the best XV. available, and not with the men who cannot turn out. Yet, let us say in justice to Edmiston, the Blackheath full back, that full back is not his position. He is a forward and was doing duty out of his regular place.

All the Guy's XV. did remarkably well. J. Durr led finely. Cameron was an able second and Hutchinson played his best game. The other five were all in top form. In attack and defence the backs, from Garland to Boyle, put forth their very best. One would like specially to commend Fellowes-Smith; a great tryer is Fellowes-Smith and in this match he reached again that high standard which he set himself last year. His speed, dash and resource were in full evidence.

Guy's, 5 tries (15 points); Blackheath, nil.

Guy's Team.—V. G. Boyle; G. Clarke, G. Fellowes-Smith, C. L. Steyn, G. R. Mostert; T. O. Garland, P. D. B. Spence; J. Durr, W. H. Myburgh, E. Hutchinson, G. G. Cameron, J. W. Schabort, J. W. Popplewell, W. Hops, J. D. Visser.

Soccer.

Guy's "A" v. Goldsmiths' College Res.

PLAYED at Honor Oak Park, on Wednesday, November 18th, and resulted in a 7—1 victory for Guy's. The game was keenly contested and Goldsmith's were somewhat unlucky to lose by such a wide margin. They might have done better if they had parted with the ball quicker, instead of retaining it only to be robbed by an opponent. Guy's team was certainly better balanced than Goldsmith's, and was more forceful. Within ten minutes Cantor opened the score for Guy's with a hard drive into the corner of the net. A few minutes later Cathie further increased Guy's lead with a cross shot which the goalkeeper made a plucky attempt to save. Calder was the next to net; obtaining the ball, he tricked two opponents and sent in a high shot which gave the goalkeeper no chance whatever of saving. Both teams were playing well and the wing men were continually on the move; however, the Hospital defence, by good anticipation and steady kicking broke up these attacks, giving their opponents no possible chance of scoring. Berman was often prominent with clever tackling. Half-time score: Guy's, 4; Goldsmith's, 0.

After the interval Goldsmith's had a rearranged team which proved to be an immense

improvement. Jones, who had been playing hard during the whole of the game, was the first to score in the second half, scoring with a splendid shot from the 25 yards range. Goldsmith's retaliated soon afterwards through their outside right. Before full time Ginn and Cantor further increased the lead, the former from a penalty kick. Result: Guy's, 7; Goldsmith's College, 1.

Guy's Team.—Fitzgerald; Berman, Robertson; Tingle, Ginn, Corry; Cotton, Calder, Cantor, Jones, Cathie.

Other Matches—

November 11th ,at Honor Oak Park, Bancroft's School.—Result:—Guy's, 6; Bancroft's School, 0. Scorers—Channon 2, Calder 2, Allott and Cathie.

November 14th ,at Honor Oak Park, Chelsea Polytechnic Reserve.—Result:— Guy's, 7; Chelsea Poly., 0. Scorers—Channon 3, Calder 4.

Guy's "A" v. Guy's Employees.

THE annual match between the Staff and Students was played under ideal weather conditions on Saturday ,November 21st, at Honor Oak Park. For the first time on record the Employees gained a victory over the Students ,winning by the only goal scored during the match. The Employees "kicked-off," and it was soon evident they were determined to "do or die," setting a very hot pace and tackling with judgement and vigour. Both teams soon settled down to work and the play ranged from one end of the pitch to the other. We were slightly more aggressive at this stage and Channon ,after ten minutes' play netted, only to be ruled off-side by the referee. The wing forwards of both teams were constantly on the move, but owing to poor marksmanship of the inside forwards their attacks were unproductive. After a most strenuous 40 minutes' play neither team had scored.

After the interval, play continued much as before, the Employees being quicker on the ball and playing a keener game than their opponents. Their reward came from a movement initiated by Winston, which enabled Goodliffe to break through and score from close range. Although we made re-doubled efforts to equalise, and practically spent the last 20 minutes in bombarding the Employees' goal, all our endeavours were unavailing against the dour defence opposing us. A word of praise must be given to Abbott, Sachell, and Winston, who played brilliantly for the Employees and were always to be found where they were most required.

The Employees are to be congratulated in at least breaking a long series of defeats, and it is to be hoped that all future games between the two sections will be as keenly contested and enjoyable as this. Result: Guy's "A" 0; Employees 1.

Guy's "A" Team.—Fitzgerald; Daplyn, Robertson; Siggers, Ginn, Blaikley; Cotton, Allott, Channon, Tingle, and Cathie.

Employees' Team.—Abbott; Sachell, Robinson; Herbert, G. A. Winston, Dunning; Baker, Junior, Chapman, Goodliffe, Ireland and Grimwood.

Fencing.

IT is proposed to start a series of competitions among members of the Guy's Hospital Fencing Club in the form of the "Ladder" System of Tournaments.

The following rules have been drawn up provisionally, and are subject to alteration and ratification by the General Meeting of the Pavy Gymnasium to be held at a near date.

RULES.

1. The "Ladder" system shall consist of boards and pegs which shall be numbered from 1 (one) consecutively onwards as many as is deemed necessary, together with sufficient labels for names of members.

2. Any member of the Clubs' Union who is also a member of the Fencing Club shall be eligible to compete.

3. At the beginning of each season members who wish to take part in the Tournaments shall give their names either to the Secretary of Fencing or to the Captain of the Gymnasium. Places will be drawn for at the beginning of each season by the Committee.

4. Separate boards shall be kept for Foil, Epée, and Sabre, and they shall come under the care of the Secretary of Fencing, and they shall be kept in the cupboard used for the Fencing Kit.

5. A member whose name appears on the board may challenge either the next above, or the next but one above his name, but no higher. The challenger must provide 2 (two) referees; one of these must be agreed to by the member challenged.

6. Challenges must be handed in in writing to the Secretary of Fencing at least 2 (two) days before the match.

7. No member may challenge more than two other members in each weapon during 1 (one) week.

8. If a member fails to answer a challenge within 7 (seven) days of its issue, he shall be deemed to have lost and so shall forfeit his place.

9. Members wishing to join the Tournament after the beginning of the season may be allowed to enter at the discretion of the Committee.

10. At the end of every season a list of the winners and the runners-up shall be published in the GAZETTE.

11. The Committee shall consist of the Captain of the Gymnasium, the Secretary of Fencing, and the Fencing Member on the Pavy Gymnasium Sub-Committee.

12. All disputes, complaints, and other such matters, are to be handed in writing to the Secretary of Fencing whose business it is to call a committee meeting at which the member entering the dispute, complaint, or other such matter, shall be present.

CHAS. H. JOHNSON,
Hon. Sec.,
Guy's Hospital Fencing Club.

N.B.—For this season names should be handed in to either C. H. Johnson or E. L. Monkhouse at the earliest opportunity.

ON Friday, November 13th, 1925, the Hospital Team met the London Rifle Brigade in three weapons. The bouts were warmly contested throughout, especially in the sabre, when everyone hit hard and often. After an enjoyable evening the match resulted in a draw.

The Captain was not in such good form as against Oxford, but his defeats were often bad luck rather than bad play. C. P. Blacker was very useful, and we look forward to his services throughout the season. Johnson made a good recovery in foils, while Monkhouse played excellently with the epée. Gover was not quite up to his usual form.

Teams :—

Foil—
T. Silvester (captain), won 1, lost 2.
C. P. Blacker, won 2, lost 1.
C. H. Johnson, won 3, lost 0.

Epée—
T. Silvester, won 1, lost 2.
P. A. Gover, won 1, lost 2.
*E. L. Monkhouse, won 2, lost 1.
*1 coup double.

Sabre—
T. Silvester, won 1, lost 2.
C. H. Johnson, won 1, lost 2.
E. L. Monkhouse, won 1, lost 2.

Result.—L.R.B., 13 wins, 1 coup double. Guy's, 13 wins 1 coup double.

Hospital Information, etc.

Guy's Hospital Chapel.

Advent and Christmas, 1925.—Special Services.

SUNDAYS.

Holy Communion, 7 and 8.45 a.m. (on December 6th at 6.15 a.m. also).

Mattins 11 a.m.—

Addresses will be given as follows—

The Invitation.

i. November 29th.—"Ye that do truly and earnestly repent of your sins."

ii. December 6th.—"And are in love and charity with your neighbours.

iii. December 13th.—"And intend to lead a new life, following the Commandments of God, and walking from henceforth in His holy ways."

iv. December 20th.—"Draw near and take this Holy Sacrament to your comfort."

Evensong and Sermon 6.30 p.m.

In Southwark Cathedral.

DAILY.

Holy Communion, 7 a.m.

Fridays, 8.15 p.m.

Compline.

Addresses will be given by the following—

December 4th, The Rev. W. H. Hacksley, B.A., Rector of Newington.

December 11th, The Rev. N. B. Page, M.A., Vicar of St. John, Red Lion Square.

December 18th, The Rev. J. A. L. Hardcastle, St. John, Red Lion Square.

Monday, December 21st—

Preparation for Christmas Communion, 9.15 p.m.—

v. "And make your humble confession to Almighty God, meekly kneeling on your knees."

CHRISTMAS DAY.

Holy Communion, 6.15, 7, and 8.30 a.m. (Offerings for South London Church Fund).

S. Andrew (Nov. 30), S. Thomas (Dec. 21), S. Stephen (Dec. 26), S. John the Evangelist (Dec. 27), The Holy Innocents (Dec. 28), The Circumcision (Jan. 1), The Epiphany (Jan. 6) (201st Anniversary of Guy's Hospital)—Holy Communion 7 a.m.

Specialities.

H. E. CURTIS & SON, LTD., 7, Mandeville Place, W.1.

ELASTIC Hosiery under the registered name of "Walcur" is supplied by the above firm in a variety of textures and colours.

The attention of readers is called to the price of Ordinary Thread Stockings from 7s. 6d. (not 7s. 6d. per pair as misprinted in a recent issue of the GAZETTE Advert.).

"Ozomint" Tooth Paste.

THIS is an all British product. It contains a large proportion of potassium chlorate, which is so beneficial to the throat, mouth and gums. No soap is included in its composition and therefore no lather or foam is produced in use.

The flavourings are peppermint, cloves, wintergreen, etc., chosen for their antiseptic qualities.

There is nothing in "Ozomint" to scratch the enamel on the teeth or to injure the delicate tissues of the mouth. It is efficient and antiseptic and costs 1s. per large tube.

Messrs. Cuxson, Gerrard & Co., Ltd., will be pleased to send further particulars on application to the above address.

"Brusson" Gluten Bread.

MESSRS. BRUSSON, JEUNE & CO., 311, Gray's Inn Road, W.C.1.

"BRUSSON" Gluten Bread should prove a valuable asset in the Diabetic Dietary, and we should therefore like to draw our readers' attention to the *Lancet* Analysis, as follows:—

Moisture	12.5	per cent.
Ash	0.6	" "
Fat	1.3	" "
Protein	36.8	" "
Starch	42.7	" "
Undetermined, Fibre, etc.	6.1	" "
	100,0	

Matter soluble in cold water, 12.4 per cent.

It is prepared from the highest quality wheats, no drugs, chemicals, or adulterants entering into its preparation, and is the cheapest gluten bread produced.

"Brusson" Bread is extremely light in texture, crisp, appetising, and nutritious.

Samples, with literature will be gladly forwarded to Medical Men, on request to the Manufacturers at the above address.

Angier's Emulsion.

THE ANGIER CHEMICAL CO., LTD., 86, Clerkenwell Road, E.C.1.

"ANGIER'S Emulsion" is well known as the most palatable form of purified petroleum with hyperphosphate of lime and soda, glycerine, etc. No alcohol and no narcotics are added.

The oil globules are so minutely divided that it has almost the consistency of cream and even the most delicate stomachs can assimilate it.

It assists the digestion of all kinds of food, maintains bodily nutrition, prevents intestinal fermentation, stimulates peristalis, and acts favourably on the mucous membranes.

It is specially valuable in phthisis, bronchitis, Pneumonia, influenza and gastro-intestinal disorders.

We can recommend it with confidence to our readers.

Appointment.

J. F. H. Stallman, M.B., B.S., F.R.C.S., Assistant Surgeon, Gloucestershire Infirmary, appointed Surgeon-in-Charge of the Orthopædic Department.

Change of Address.

Dr. Francis Edwards, Cherchefelle, Reigate. 'Phone, Reigate 94.

H. A. H. Harris, M.R.C.S., L.R.C.P., The Park Royal Hospital, Acton Lane, Willesden, N.W.

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The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Births.

WEBB.—On November 21st, 1925, to Dr. and Mrs. Harold Webb, 10, Egerton Road, Bexhill-on-Sea—a daughter.

CARLING.—On November 20th, 1925, at Alton, Hants., to Bessie (née Hill), the wife of Dr. W. Russell Carling—a son.

Marriage.

HORE—DELAY.—On October 23rd, 1925, at St. Clement Danes, Strand, by the Rev. W. Pennington-Brickford, M.A. William George Robins Hore, M.R.C.S., D.L.O.R.C.P., to Winifred Alice Delay.

EDS. { C. P. B. / S. V. S.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

AT seven o'clock on the evening of Tuesday, December 8th, there took place at the Bridge House, the Annual Dinner of the Guy's Hospital Employees Association. There were present no less than 180 persons, including the greater part of the Surgical and Medical Visiting Staff. The sexes were nearly equally represented, the gentler one being in a slight minority.

Proceedings were enlivened by a musical programme, consisting of a pianist and four vocalists, by whom the speeches were interlarded with sentimental and comic songs. The anecdotes and humorous stories of Mr. Rex Harold, the possessor of a face and figure the mere beholding of which provoked mirth, were especially well received.

Miss Winnie Vaughan, at the piano, succeeded in inducing her audience to sing choruses to one of her songs. In two successive choruses she challenged the ladies present to sing louder than the gentlemen—an enterprise which was frustrated by the exuberance of some of the gentlemen, who did not seem to grasp when they were expected to keep quiet.

Mr. Eason occupied the chair. The Health of the King was proposed and drunk, and the complete National Anthem was sung in a penetrating voice by a lady vocalist.

After commenting upon the distressing effect of the Southwark Cathedral bells—which were peeling continuously during most of the dinner—upon the temper of Professor Johnston, the Chairman called upon Mr. F. J. Steward to propose the toast of Guy's Hospital and Schools.

Mr. Steward then arose and made a speech the theme of which was the "prosperity of Guy's Hospital." The incompleteness of the success of the Bicentenary Appeal for money was attributed by him to an unfortunate mistake made early in the history of the Hospital by the architects who built it. These gentlemen did their job too well. Unlike another hospital, erected since this one, Guy's was not now falling down, and we were consequently deprived of material for a sensational and remunerative appeal to public generosity. But the prosperity of Guy's was not a matter of money so much as of health.

Was Guy's healthy? Mr. Steward asserted that it was. For the health of the Medical School with which he had been associated for 36 out of its 100 years of history, he personally could vouch. Upon the health of the Dental School it was superfluous to discourse. Mr. Steward then paid a warm tribute to students from South Africa, and especially to Mr. C. L. Steyn, who had won more events for Guy's than any student had ever won for any hospital in this country. Loud cheers greeted this statement, and it seemed a pity that Mr. Steyn was not present to realise how great was the appreciation of his athletic services to Guy's.

The speaker then weighed the value of the relative parts played by the Surgical and Medical Staff on the one hand, and the employees on the other, and decided that if there were no Surgeons to operate, and no Physicians to investigate and treat, the patients would be little the worse off. In the absence of the Employees, however, the Hospital would immediately collapse in ruins, and all the patients die forthwith.

After a musical interlude, Mr. J. B. Parfitt was called upon to respond to the toast. His speech was delivered with great rapidity, and

was unfortunately inaudible to those sitting in the remoter parts of the room. It consisted chiefly of personal reminiscence of the Hospital as it had been in the past, and of the changes which he had witnessed—changes in the Anatomical Department, and in general architectural features. After visiting the Dental Schools of another country (America), he expressed himself satisfied with Guy's, the distinctive spirit of which resided, not in buildings, nor in records of the past, but in men and women now carrying on work. There followed a tribute to Mr. S. H. Croucher, whom he had known for no less than 34 years, and upon whose merits Mr. Parfitt briefly expatiated.

Without being called upon, Mr. Hancock then arose and in eloquent terms eulogised Mr. Croucher at the moment of his resignation. The latter was then presented with an imposing looking clock, which looked capable of emitting chimes which should keep perennially verdant in the mind of its owner, the memories of his 38 years service to Guy's.

At considerable length, Mr. Croucher then acknowledged the gift.

After a further musical interlude, Mr. Eason proposed the health of the Guy's Employees' Association, which, he said, was tantamount to proposing the toast of "our noble selves," in so far as he was President of that Association. Though the tenure of this office is a source of great pride to him, he feels that, as Superintendent, he is not indispensable to the Hospital, there being present several people who could readily step into his shoes, and carry on his work. He enumerated their names, which were received with cheers.

When visitors came to the Hospital, Mr. Eason makes a point of showing them, not what takes place "on the scenes," but rather what goes on behind them,—i.e., the work of the Hospital employees. In addition to the part played by the architect of the Hospital, there was another reason why Guy's would not fall down, and that was the efficiency of the Works Department. The Guy's Employees' Association and Works Department are the largest of any London hospital, and are run more cheaply than those of any other.

Mr. H. J. Beale responded to the toast, and thanked Mr. Eason, and the "Professional Staff" of the Hospital for attending the dinner, and for finding, out of the little leisure at the disposal of such busy people, time to support the Association.

Prizes for tennis, chess, and draughts tournaments were then gracefully distributed by Mrs. Eason. The names of the winners are given elsewhere in this number. "Auld Lang Syne" was sung, and the meeting dispersed.

OUR very sincere congratulations to Mr. W. R. Spurrell upon winning the Gold Medal in the examination for the London M.B., B.S.

The winning of the Gold Medal is an honour that has not been gained by a candidate from this Hospital for some years. Actually, it was last won by Mr. H. O. Brookhouse in October, 1908, and before this by Mr. Trethowan, in 1906.

A Gold Medal is not given as a routine to the candidate who gains best marks in this examination, but is only granted to those who reach a certain high standard of merit which is by no means always achieved by the candidate who gets top marks.

WE publish in this number a lecture delivered by Dr. A. F. Hurst, in the Anatomical Theatre, at 1 o'clock, on Tuesday, December 8th, upon "Ninety Years at Guy's Illustrated in the Reports."

We hope that none of our readers will overlook this lecture, which will be found by all Guy's men to be of quite unusual interest. We would also draw particular attention to the appeal made by Dr. Hurst on behalf of the Guy's Hospital Reports. It is, of course, superfluous for us to comment on the interest and value of these Reports, or to attempt to bring them to the notice of anyone, except perhaps the student who has recently joined the Hospital.

To him, however, it may be said that in the Reports he will find not only contributions to general medicine by members of the Staff of this Hospital, under whom he will later work, and with whose views it will therefore pay him to be familiar, but he will also find sustained therein the unique tradition of original research for which the name of this Hospital is celebrated throughout the world. It is a tradition with which every student, in the course of his training here, should endeavour to make himself familiar, and of which, with every justification, he may feel proud.

The generosity of the terms on which the Reports published since the war (and since they were first edited, in quarterly form, by

Dr. Hurst), are about to be offered, will be understood from the fact that whereas, hitherto, the complete set of 4 volumes have cost £4 10s., after next January the same set will be obtainable for 25s. In view of the expense of medical books nowadays, it would be difficult to spend twenty-five shillings more profitably than in acquiring these volumes.

Further, the 4 quarterly Reports will in future be obtainable for a guinea, and it is hoped that as many persons as can possibly do so will submit their names to Mr. G. A. Winston at the Wills Library, as regular subscribers to the Reports. As Dr. Hurst states, the Reports are in urgent need of regular financial support, and it would indeed be deplorable if they were allowed to lapse for lack thereof from present Guy's men.

THE results of the Final Fellowship Examination of the Royal College of Surgeons, announced at the beginning of this month, are such as to bring considerable satisfaction to those who have organised and coached these classes.

Out of eleven candidates, eight got through this November, and out of thirteen candidates, eight got through last March. The success of candidates from our class may be gauged from a brief review of the history of the Fellowship Class since the war. The class was planned in 1921, but abandoned for lack of adequate support. In March, of 1922, there were six candidates, of which no less than five passed, whose names are well known to the present generation of Guy's men. They were Messrs. Grant-Massie, Carter-Braine, Medlock, Gaymer-Jones and Victory. Since then applications to attend the course have increased until this year, when there have been more applications than vacancies.

Two courses are held annually, beginning on March 1st and September 1st, leading up to the examinations in May and November. The fee for the course is £26 5s., but a special reduction is made in favour of Guy's men, who are allowed to take it for £17 10s. Precedence is given to Guy's men when applications are considered. A special feature of the course is that a mock examination, in which Surgical Registrars take part, is held every three weeks on lines resembling as closely as possible those of the College examination. In the course of the mock examination each candidate is examined by three different people in Clinical Surgery, Pathology, and a written paper. The class is conducted on a basis of equality between teacher and candidate, with emphasis on the practical rather than the theoretical aspect of surgery, with as much free discussion and personal contact as possible. The class is held for 3 consecutive hours, without interval, so that candidates are not kept waiting about the Hospital unnecessarily, and when the classes are over, can devote themselves to reading or to watching operations, as they prefer.

The course has been planned and organised by Mr. W. H. Ogilvie, to whom the chief credit is due for the excellence of the results. He has been helped by Mr. Davies-Colley, who has taught Surgical Pathology, and by Mr. Bromley in Operative Surgery. Mr. Rowlands, Mr. Hughes and Mr. Turner have also taught Clinical Surgery.

THE Clubs' Union Year Book for 1925—1926 is now ready, and may be obtained from the Medical School Office upon production of Membership Card.

ON Wednesday, December 9th, at 8.15 p.m. in the Chapter House, a very successful concert was held by the Musical Society, which we report elsewhere in this number. We would draw the attention of our readers to a performance of "The Gondoliers," by the same Society, to be held in the Spring of next year, at a date as yet undetermined.

THE sale of poppies on Armistice Day realised the sum of £13 7s. 6d., for which a cordial letter of acknowledgement has been received from the British Legion. The sale was somewhat hastily organised this year, and it is felt that if longer notice could be given next year, the proceeds would be greater.

A NEW and very handsome folding Christmas and New Year Greeting Card, obtainable from the Clerk, Counting House, Guy's Hospital, for the sum of 6d., has been prepared reproducing the Hospital Arms in gold and colours outside. The proceeds of the sale of these cards will be given to the Hospital Funds. It is hoped that they will commend themselves to the readers of the GAZETTE. Other, and cheaper cards obtainable at 4d. may be bought at the Wills Library, Matron's Office and College Dining Room.

Ninety Years of Medical Progress as illustrated by Seventy-five Volumes of Guy's Hospital Reports.

A Lecture by Dr. A. F. HURST, delivered on December 8th, 1925.

THE seventy-five volumes of the "Guy's Hospital Reports" which you see on this table will take the place of a patient as the subject of my Clinical Lecture to-day. They contain most of the important contributions to medicine which have originated in the Hospital during the last ninety years. You will soon realise how much of the progress of medicine during the ninety years which have elapsed since the publication of the first volume has originated in investigations carried out in the Guy's wards and laboratories.

Bright's Disease.

In 1826 Bright published his "Reports of Medical Cases," in which he described for the first time the association of disease of the kidneys with albuminuria and œdema. The first volume of the Guy's Reports, published in 1836, contained two long papers on the subject by Bright. As Sir William Hale-White wrote in the Reports for 1921, "this is one of the most wonderful series of papers in medical literature. A disease, which presents symptoms of derangement of almost every organ of the body, is unerringly ascribed to the kidney. We are shown how to diagnose it. Its causes. its symptoms, its treatment and its post-mortem appearances are given with such a completeness and accuracy that after nearly a century no error has been detected in Bright's description, and, if we except a few facts that have been gleaned by instruments he did not possess, nothing of importance has been added."

Several valuable contributions to our knowledge of renal disease were made in later years by Guy's men. Thus, in 1843, Lever pointed out for the first time that puerperal convulsions are almost always associated with albuminuria. In 1872 Gull described the form of granular kidney, which is secondary to vascular disease and is now known as the arterio-sclerotic kidney, whilst Gull, and subsequently Moxon, in the Reports of 1878, described functional albuminuria for the first time. Using the sphygmograph but without the aid of any sphygmomanometer, Mahomed, in 1879, clearly recognised the condition now known as hyperpiesis and distinguished it from the high blood pressure of renal disease.

Addison's Disease and Addison's Anæmia.

In a clinical lecture delivered at the Hôtel Dieu in Paris, in 1872, Trousseau proposed to designate the disease from which the patient he was demonstrating suffered "by the name of the English physician who discovered it. The physician to whom I refer is Dr. Addison, the fellow-labourer of Bright, the Dean of the Medical School attached to Guy's Hospital, a man who has long been known among us by his valuable scientific works. I propose to give the name of Addison's Disease to the singular cachexia which is specially characterised by a peculiar coloration of the skin," and "is associated with a lesion of the supra-renal glands."

In 1855, Addison had published his book on "The Constitutional and Local Effects of Diseases of the Supra-renal Capsule." In it there is an extraordinarily complete account of the condition universally known since Trousseau's lecture as Addison's disease. He showed that it was possible to diagnose it with almost complete certainty when the characteristic pigmentation was associated with a feeble pulse and marked asthenia. His work was cut short by his death, but Wilks, who had assisted him in the publication of his book by collecting and describing the cases, in a series of papers published in the Reports, greatly helped to establish the facts concerning the disease, in the face, at first, of considerable opposition. In the Reports for 1924 Dr. Conybeare and Mr. Millis have thrown some further light on the disease as a result of their analysis of the cases observed at Guy's during the previous twenty years.

It is interesting to note that another disease caused by atrophy of an internally secreting gland was first recognised by a Guy's physician, as the condition now known as myxœdema was described in 1873 by Gull, in a paper on a "cretinoid state supervening in adult life."

Thomas Addison, physician to the Hospital from 1824 to 1860, in a paper on "Anæmia and Diseases of the Supra-renal Capsule," read before the South London Medical Society in March, 1849, referred incidentally to a "remarkable form of anæmia," which he had regarded in recent years as "a subject of earnest inquiry and very deep interest." Six years later in his monograph on "Diseases of the Supra-renal Capsules," he gave the following admirable description of the condition commonly known as pernicious anæmia. "For a long period I had from time to time met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever; cases in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura, no renal, splenic, miasmatic, glandular, strumous or malignant disease. Accordingly, in speaking of this form of anæmia in clinical lecture, I, perhaps with little propriety, applied to it the term "idiopathic," to distinguish it from cases in which there existed more or less evidence of some of the usual causes or concomitants of the anæmic state.

"The disease presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed, after a variable period, by the same fatal result. It occurs in both sexes, generally, but not exclusively beyond the middle period of life, and so far as I at present know, chiefly in persons of a somewhat large and bulky frame, and with a strongly marked tendency to the formation of fat. It makes its approach in so slow and insidious a manner, that the patient can hardly fix a date to his earliest feeling of that languor which is shortly to become so extreme. The countenance gets pale: the whites of the eyes become pearly, the general frame flabby rather than wasted; the pulse perhaps large, but remarkably soft and compressible, and occasionally with a slight jerk, especially under the slightest excitement; there is an increasing indisposition to exertion, with an uncomfortable feeling of faintness or breathlessness on attempting it; the heart is ready to palpitate; the whole surface of the body presents a blanched, smooth and waxy appearance; the lips, gums and tongue seem bloodless; the flabbiness of the solids increases; the appetite fails; extreme languor and faintness supervene, breathlessness and palpitations being produced by the most trifling exertion or emotion; some slight œdema is probably perceived about the ankles; the debility becomes extreme, the patient can no longer rise from his bed, the mind occasionally wanders, he falls into a prostrate and half-torpid state, and at length expires; nevertheless, to the very last, and after sickness of perhaps several months' duration, the bulkiness of the general frame and the amount of obesity often present a most striking contrast to the failure and exhaustion observable in every other respect."

Since Addison's time all cases of this "idiopathic anæmia" admitted to Guy's Hospital have been carefully analysed, and the results have been recorded in the Reports successively by Wilks, Taylor, Pye-Smith, Hale-White, French, and, finally, in 1922, by Campbell and Conybeare.

In 1871, Biermer published a paper on "Progressive Pernicious Anæmia." Under this heading he included "a number of different forms of anæmia, which have certain characteristic features in common, a spontaneous origin without clear etiology being one of the rarities." A careful study of his work shows that he added nothing new to our knowledge of the disease, but his work led to much confusion by the inclusion under a single name of both Addison's "idiopathic anæmia" and a great variety of other conditions. The designation "Biermer's anæmia," which is employed in Germany and Switzerland, is therefore quite unjustified. The name "pernicious anæmia," having been introduced by Biermer for an entirely different purpose, is equally unsuitable, as well as being most undesirable on account of the depressing significance that it has for the sufferer who receives this description of his disease. As the investigations of the last twenty years have shown that the disease is almost certainly due to infection of the intestinal tract, the original name of idiopathic is no longer correct. Addison's description of the disease is so admirable that I am convinced that no more suitable name could be devised than Addison's Anæmia, as William Hunter first suggested in 1909.

Hodgkin's Disease.

Five years before the appearance of the first volume of the Reports, Hodgkin, who was then Demonstrator of Morbid Anatomy at Guy's, described "Some Morbid Appearances of the Absorbent Glands and Spleen." Amongst his cases are two or possibly four which are true examples of the condition now known as

Hodgkin's Disease. In the Reports for 1856 Wilks described a "Peculiar Enlargment of the Lymphatic Glands," which was the first clear recognition of the specific nature of the disease. Just before its publication he read Hodgkin's paper and found that it actually included some of the cases in his own series; he therefore added a note referring to Hodgkin's work, which had up to then been carefully ignored. In a second paper published in the Reports for 1865, just before Hodgkin's death, Wilks attached Hodgkin's name to the disease. As the recognition of the condition was entirely due to the work of Wilks, it is a pity that later writers did not call it the Hodgkin-Wilks disease.

Visceral Syphilis.

We are all so familiar with the idea of visceral syphilis that it comes as a surprise to find that it was described for the first time in a paper by Wilks "On the Syphilitic Affections of Internal Organs" in the Reports for 1863. Wilks later described this as "the most noteworthy original article which it has been my good fortune to write." At that time autopsies were only performed at the special request of the member of the staff under whose care the patient happened to be. A man with caries of the cranium died in a surgical ward. The condition was obviously syphilitic, and the surgeon did not ask for a post-mortem. As nobody before had had the curiosity to look inside the body of a man dying from syphilis, Wilks obtained permission to perform an autopsy. He found a gummata in the liver, lungs and brain; this single post-mortem was the foundation upon which was built, largely as a result of Wilk's own later work, our present knowledge of visceral syphilis, including the discovery of syphilis of the blood vessels and the syphilitic origin of aortic aneurysm.

Nervous Diseases.

The Reports contain numerous papers of great interest in the history of neurology. The earliest is that of Bright, who in a paper in the first volume pointed out that when fits were unilateral, and not associated with loss of consciousness they were generally found to be due to a local disease of the surface of the brain and neighbouring meninges. He thus foreshadowed the great work of Hughlings Jackson many years later, as there is no doubt that he had a clear conception of the condition now universally known as Jacksonian epilepsy. When, in 1863, Wilks discovered the existence of visceral syphilis, he showed that some cases of Jacksonian epilepsy were due to a local syphilitic lesion of the brain, a condition which had never before been recognised. As it was well-known that potassium iodide caused superficial gummata to disappear, Wilks tried its effect in cases of supposed cancer of the liver in young individuals, and was rewarded by observing rapid recovery with the disappearance of large hepatic tumours. He found that iodide was equally successful in those cases of Jacksonian epilepsy which were due to syphilis. On comparing the effect of iodides and bromides, which had only recently been used in medicine for the first time, Wilks found that the latter were useless in the treatment of all gummata except those of the brain which caused Jacksonian epilepsy. From this he was led to try the effect of bromides on ordinary epilepsy, with results which have conferred a priceless boon on thousands of epileptics.

In the Reports of 1858 Gull published a paper on "Paraplegia." Amongst the cases he described was that of a man whose difficulty in walking was due more to inco-ordination than weakness, all voluntary movement of the legs being "jerky, fumbling and vague." At the autopsy the posterior columns of the spinal cord were found to be deseased throughout their length, the rest of the cord and the nerve roots appearing to be normal, as is well shown in the drawings which accompany the paper. Gull concluded that the posterior columns carry the impulses which regulate the motor forces "and harmonise the action of the several segments of the cord." There is no doubt that this is the first clinical and pathological description of tabes.

Four years later Gull published a case of "Progressive Muscular Atrophy" of the arms in a man of 42. He found a cavity in the centre of the spinal cord from the fifth cervical to the third dorsal vertebra. He considered it to be an enlargement of the central canal and called it chronic hydromyelitis. This appears to have been the first recorded case of syringomyelia.

In the same volume Moxon describes the discovery in the dissecting-room of a body in which the peripheral nerves were found to be about three times the normal size. This must have been a case of hypertrophic neuritis, a

very rare disease which was not described again until Déjérine rediscovered it half a century later.

In 1875 Moxon described two cases of "Insular Sclerosis of the Brain and Spinal Cord" (now known as disseminated sclerosis) diagnosed during life and confirmed at autopsy.

In 1887 Dr. Newton Pitt gave a clinical and pathological description of a case of Friedreich's ataxy, and in 1889 Sir William Hale-White published a case of Thomsen's disease. Though these three diseases had already been described, they were the first or about the first to be recorded in England.

In the Reports for 1857 Gull established the fact that cerebral abscess is never idiopathic, but is always due to general pyæmia, suppuration in the thorax, or local injury or disease, especially of the ear, but also of the nose and face. In later volumes of the Reports the results of his pioneer investigations were confirmed and extended in papers by Dr. Newton Pitt and Drs. Cameron and Ripman.

Chorea and Heart Disease; Aortic Regurgitation; Infective Endocarditis.

The modern conception of chorea as a rheumatic disease was clearly foreshadowed by the physicians at Guy's in the early years of the nineteenth century. In their "Outlines of a Course of Lectures in the Practice of Medicine as delivered in the Medical School of Guy's Hospital," Babington and Currie in 1802 referred to rheumatism as a cause of chorea. In the second volume of the Reports, Bright speaks more definitely of the association of chorea with rheumatism and with pericarditis, and in the Reports for 1841 Babington says that Addison had long taught that a bruit is often heard in cases of chorea, and that after death valvular disease of the heart and pericarditis are frequently found. This leads me to refer to the forgotten fact that Hodgkin described the double aortic murmur and typical pulse of aortic regurgitation, the specimen in our Museum being the actual one from the case he describes. This observation was made in 1828, four years before the appearance of Corrigan's paper, though the aortic pulse is commonly known as Corrigan's pulse.

In a paper on "Arterial Pyæmia" in the Reports of 1870 Wilks described the case of a a medical man, whose ague-like symptoms were found after death to be due to vegetations on the heart with emboli in the spleen and kidney. This was the first account ever published of what is now known as infective endocarditis.

Appendicitis; Ulcerative Colitis; Acute Yellow Atrophy.

In their "Elements of the Practice of Medicine," published in 1839, Bright and Addison gave an admirable description of appendicitis, which they regard as the common cause of inflammation and abscess formation in the region of the cæcum. "From numerous directions it is proved that the fæcal abscess found in the right iliac region arises in the great majority of instances from disease set up in the appendix cæci. This is very subject to inflammation, to ulceration, and even to gangrene." One of Addison's original preparations, an ulcerated appendix, is still in our Museum, although it is generally taught that the disease was not recognised until the last quarter of the nineteenth century.

The whole history of our present knowledge of ulcerative colitis is contained in the Reports, beginning with Bright's description in 1838 of a case associated with nephritis. In 1875 the sporadic disease and its resemblance to dysentery was described by Wilks, its clinical and pathological features by Hale-White in 1888, and by Cameron and Ripman in 1910, and its recognition with the sigmoidoscope, and its modern treatment in the first volume of the present series in 1921.

In the first Volume of the Reports there is a paper by Bright on Jaundice, in which he describes two cases of jaundice "of a most intense character, without Mechanical Obstruction and apparently depending on Inflammatory Action of the Liver." In both the liver was atrophied and yellow—these being the first recorded cases of what is now known as acute yellow atrophy.

A good many years ago a friend of mine now on our staff discussed with me what he should choose as the subject of his M.D. thesis. He thought it would be interesting to investigate the effect of posture on the pulse rate. I suggested to him that before beginning he should look up the Guy's Reports to see whether anything had been done here on the subject before. He did not have to search for long; in Volume III, published seventy years before, Guy, subsequently physician to King's College

Hospital, had a paper on "Alterations of the Pulse by Change of Position." When you think you have come across something new in clinical medicine, you should never fail to consult the old Reports to see whether your discovery has not already been made by Bright or Addison, Gull or Wilks. Four years ago Dr. Ryle and I had under observation a girl of 22 with fatty diarrhœa and tetany. She was operated upon by Mr. Bromley for an incidental attack of appendicitis, and at the operation all the mesenteric glands were found to be large and caseous, the lacteals standing out as thick white cords. It then became clear that the fat in her food was split in a normal manner by the pancreatic juice, but that it could not be absorbed owing to the obstruction of the lacteals by enlarged caseous glands. The tetany was due to the calcium of the food combining with unabsorbed fatty acid so that it was lost in the stools. Dr. Ryle has shown that this condition is a more common cause of fatty stools than pancreatic disease, and it is probably the same thing as so-called coeliac disease. He wrote an interesting paper on the subject in the Reports for 1924, in which he drew attention to the description by Bright in 1832 of the oily stools of severe pancreatic disease and the almost completely forgotten descriptions by Gull in the Reports of 1875, of the chylous diarrhœa due to obstruction of the lacteals, which was the subject of his own paper.

In the last number of the Reports, Mr. Rowlands and I published a paper on diverticulitis, which is now being recognised as a very common disorder, often mistaken for colitis and carcinoma of the colon. It has generally been said that Virchow was the first to describe the condition, but I found that what he called "diverticula" were nothing more than the normal haustra of the colon. Admirable descriptions of diverticulitis were, however, published in 1849 by Cruveilhier in Paris and in 1887 by Habershon from his observations at Guy's, though their work was entirely forgotten for over fifty years, when in 1908 Dr. Maxwell Telling, another Guy's man, now physician to the Leeds Infirmary, drew attention to the subject again.

The most important contributions to surgery in the Reports are in connection with empyema. In 1844 Hughes, with the help of his surgical colleague, Cock, drained an empyema by daily aspiration through a large cannula—a great advance on previous methods of treatment. In 1882 Sir Arbuthnot Lane suggested that adequate drainage of an empyema could only be obtained by resecting a rib, and in the Reports for that year he described cases in which he had done this successfully. It is interesting to note that he found it difficult to persuade his medical colleagues to allow him to perform the operation, as they not unnaturally feared that the exposed medulla of the ribs would become infected from the pus and that osteomyelitis would result. It is impossible to estimate the number of lives which have been saved as a result of this epoch-making paper.

The first attempts to feed patients who were starving on account of œsophageal stricture through a gastrostomy are recorded in the Reports for 1858, when at Dr. Habershon's suggestion Cooper-Foster performed the operation for the first time. As this was in the pre-antiseptic era, it is not surprising that death resulted, but their paper paved the way to its successful performance at a later period.

I have no time to refer to numerous other papers in these 75 volumes which have contained material of great importance, but I hope I have said enough to convince you of the remarkable influence they have had on the progress of medicine during the last ninety years. So many journals are now published in every part of the world and the cost of publication has so greatly increased that it is no easy matter to finance the Reports. Five years ago it was decided to issue them quarterly instead of annually in the hope that the up-to-date papers they contain would appeal to a larger circle of readers. There is no doubt that the experiment has been to a great extent successful. But more support is required from past and present Guy's men if the Reports are to continue to appear. The Publishers have agreed, as a special concession, to allow unqualified students to have the Reports for an annual subscription of one guinea and the five volumes of the new quarterly issue for an additional 25 shillings, if they would like to complete the series. It is hoped that they will become ordinary 2 guinea subscribers after qualification. Any student wishing to subscribe should give his name to the Librarian.*

*32 names of students were given in at the conclusion of the lecture.

The Editorial Committee of the Guy's Reports would like to draw the attention of all old Guy's men to the above lecture and especially the concluding remarks. The quarterly issue was only undertaken in 1921 after 400 promises had been received from old Guy's men to subscribe, as this guaranteed number was required by the Publishers. Though the circulation outside Guy's and especially abroad has considerably increased, the number of Guy's subscribers has fallen by over a hundred, so that, unless a considerable number of new subscribers are obtained for next year, the publication of the Reports will have to cease after 1926, which would be most deplorable in view of its fine record during the last ninety years. Apart from subscribing for themselves, many old Guy's men might like to take in the Reports for some local Medical Society in which they happen to be interested. Any suggestion for increasing the interest and practical value of the Reports will be welcomed by the Editor, who will also be very glad to publish papers by Guy's men who are no longer at the Hospital.

Subscriptions should be sent to the Manager of the "Guy's Hospital Reports," 1, Bedford Street, Strand, W.C.2, or preferably a banker's order should be obtained from him and returned when completed in order to prevent trouble and delay in collecting subscriptions in future years. One or more of the last five volumes can be obtained by new subscribers at a reduced rate on application to the Manager.

III.—Notes on Medical Education in the United States.

By J. J. CONYBEARE, M.D., M.R.C.P.

(*Concluded.*)

The Medical Curriculum.

It has already been pointed out that all medical schools in America demand a period of University training before entry, and during their college work students are required to have done a sufficient amount of chemistry, physics, and biology to meet the requirements of the medical school. In consequence, the four years of medical study start directly with anatomy and physiology.

In general outline the four years curriculum is much the same at most medical schools. The first year is devoted to Physiology, Anatomy, and Physiological Chemistry: the second year is mainly Pathology and Pharmacology, with a small amount of time devoted to introductory work in medicine and surgery: the third year is mainly work in the Out-Patient Departments and in some cases Obstetrics, supplemented by large numbers of lectures, clinics, and so-called "recitations": the fourth year is the period of practical training during which the student holds appointments as medical ward clerk or surgical dresser.

At this point it must be made clear that throughout the medical course the academic year consists only of eight months. This applies to the period of clinical work as well as the instruction in the medical sciences. From early in June until October all teaching ceases and the students are away.

Pre-Clinical Sciences.

In America considerably less time is devoted to Anatomy and Physiology than in England, while the teaching of Pathology and Pharmacology is more highly developed. This is shown by the following table, which gives the number of hours devoted to the various subjects at Harvard:—

Anatomy (including histology and embryology), 480 hours.
Physiology (including biochemistry), 464 hours.
Pathology (including bacteriology and clinical pathology), 574 hours.
Pharmacology, 104 hours.

At the Johns Hopkins the programme is very similar:—

Anatomy (including histology), 473 hours.
Physiology (including biochemistry), 440 hours.
Pathology (including bacteriology), 374 hours.
Pharmacology, 121 hours.

From the above figures it is clear that Pathology and to a lesser degree Pharmacology play a considerably more important rôle in the medical curriculum than they do in England and that the time alloted to Anatomy and Physiology is correspondingly reduced.

As regards knowledge of gross human anatomy the American student is badly equipped, judged by British standards. His dissection has been compressed usually into a period of three months and in most cases he forgets what anatomy he has learned almost at once. In most schools the examination in anatomy follows immediately the conclusion of the course, and once it is over anatomy can be regarded as more or less a thing of the past, as the final examinations in surgery do not include questions on pure anatomy as they do in England. In all American medical schools, histology is now taught in the Anatomical Department, and considerable attention is paid to this subject, including the histological anatomy of the central nervous system.

In most American medical schools the Department of Physiological Chemistry has its own professor and staff who are quite independent of the Professor of Physiology. In the latter subject much of the practical work consists of experiments performed by one student upon another: in this way such subjects as blood pressure, alveolar air, polygraph tracings, basal metabolism and many others are studied. In addition, the absence of vivisection laws allows more freedom in mammalian experiments than in England. These are carried out both by the students themselves working in groups or as demonstrations.

Perhaps it is in the provisions for the study of Pharmacology that America is most markedly in advance of most English medical schools. At the Johns Hopkins the staff of the Pharmacology Department consists of a Professor and six assistants, all of whom are on a full-time basis. Although the amount of teaching is small compared with Pathology or Physiology, the Pharmacological Laboratories are well equipped and a great deal of very valuable research work is carried on in the department.

It is not perhaps generally recognised in England that the pre-clinical sciences in American schools enjoy several great advantages over the corresponding departments in English schools. To begin with, as has been already pointed out, the staff is very much larger and is all full-time: in addition laboratory space both for routine teaching and for research is usually ample, and most departments have a workshop for the making of special apparatus and glassware. Then again in the American medical schools all the students commence their course at the same time and teaching work is only carried out for a small portion of the year, leaving long periods free of routine duties and available for research work. Further, the student has not to be prepared to face external and independent examiners. The Professor is the sole arbiter as to whether a student has reached the necessary standard in his own subject, and the department does not have to deal with the problem of the student who desires to take a more advanced examination, such as the primary fellowship examination in England: nor is there the student who fails in his examination, for a failure in most schools usually means the withdrawal of the student from the school. Thus, in America there is no need for any revision classes, or separate arrangements for students taking special examinations. There is, however, a tendency to regard a certain number of hours spent in lectures, demonstrations or laboratory work as evidence of attainment of knowledge on the part of the student, and sufficient allowance is not made for the obvious fact that individual students must vary very widely in the amount of time they require to reach the necessary standard in any one subject. In other words the standardisation of instruction to a fixed schedule of hours bears somewhat unfairly both upon the student who is above or below the average. The rigidity of the curriculum practically excludes a student spending an extra year in, for example, such a subject as physiology, nor is there any degree corresponding for instance to the B.Sc. of London University for which such a man might work.

Although the system of purely internal examinations has much to be said in its favour in that it allows a wide measure of freedom to teachers in the arrangement of their curriculum, it is not without its disadvantages. It is without doubt beneficial for the teachers in any institution to have the results of their efforts checked by independent external examiners of good standing, and also there is less tendency for wide variations in the standards set at different schools. It must be remembered that it was mainly the system of internal examinations which made possible the scandalous medical schools so common in America twenty to thirty years ago.

It may be contended that the State Board examinations act as a check on the teaching of individual schools. This might be so were these examinations of a reasonable character. Unfortunately, however, in many States they are extremely stereotyped in character and often consist of a written paper only, the questions in which vary but little from year to year. The State Board examiners also are not as a rule experts in the subjects in which they examine and there is sometimes a political element in their appointments. This, however, is not true of the recently instituted National Board examinations, which are much more comparable in their general character to those held by the Conjoint Board in England. Unfortunately, however, only a limited number of students attempt the National Board.

Clinical Teaching.

The third and fourth years of the medical course are devoted entirely to instruction in the clinical subjects, but during the second year there are also a number of introductory lectures and clinics with elementary practical instruction in physical signs. The exact details of the course naturally vary considerably in different schools, but the principles and methods of instruction follow the same general plans of giving most of the theoretical work during the third year, while the fourth or final year is devoted to more practical work in the wards of the hospital.

Before discussing the details of the clinical instruction given to students it is important to realise that all teaching ceases for the four summer months, during which period students are no longer expected to attend the hospital. As a natural consequence it follows that students cannot play the integral part in hospital routine work, which is so definite and unique a feature of the London Medical Schools. The Hospital Authorities are unable to rely on medical students for the performance of routine duties, such as help in the Out-Patient Department, keeping of hospital records, dressings in the surgical wards, or attendance on the obstetric district. In consequence hospitals have to employ on an average three times the number of house officers that would be considered sufficient in London. This fact in itself diminishes to a very great extent the amount of practical work which is available for the American medical student even in his fourth or so-called "practical" year. In surgery, for instance, the dressings are all done by house-officers, and it is very rare for a student to get an opportunity to "wash-up" in the operating room. In the medical wards all such operations as lumbar puncture or thoracocentesis are carried out by the house officer and not by the student.

Perhaps the most striking difference beween the American and London schools lies in the restrictions which are laid on students as regards entering the wards. During the whole of the third year a student has no right of entry into the hospital wards, and even in the fourth year he is practically confined to the group of wards in which he happens to be working at the moment. As an example I may quote an actual example which chanced on my notice. At a clinical demonstration for third year students a patient from the wards was shown with remarkable changes in the fundus oculi. These were described by the professor but students had no opportunity of examining the eye. At the end of the lecture a student asked the professor if he could examine the patient in the ward. It then transpired that in order to be allowed to do so the professor had to give him a signed permission addressed to the nurse in charge of the ward. It was also remarkable how seldom students are to be seen in the wards, except at the stated times for ward-rounds by the staff.

The third year is mainly given up to lectures, clinics and out-patient work. The schedule for the third year at the Presbyterian Hospital, New York, allots 546 hours to lectures, clinics and conferences, out of a total of 1,056 hours work during the year. Similarly, during the third year at Harvard Medical School lectures, recitations, clinics, and demonstrations in medicine fill 136 hours, as compared with 60 hours of medical out-patient work. During the third year instruction is given not only in medicine and surgery, but also in many of the special departments. Thus, at Harvard, consecutive periods of a fortnight are spent in the special out-patient clinics for psychiatry, neurology, dermatology, syphilology, orthopædics, laryngology, otology, genito-urinary surgery, obstetrics, gynæcology, and pediatrics. Not only are these special subjects taught before the student has done the main part of his general medical and surgical work, but the periods allotted to each are so short that the knowledge obtained is bound to be very superficial. As a Harvard third

year student said to me, all he learned in a fortnight of laryngology was that his instructors were able to see a larynx or naso-pharynx. It is difficult to avoid the belief that any system which places instruction in neurology before general medicine, or genito-urinary surgery before general surgery, is essentially wrong in principle.

At the beginning of the third year considerable attention is paid to the teaching of physical diagnosis. At the Johns Hopkins, students in groups of three are handed over to an instructor, who takes them over one or two cases, who are specially got up to the Dispensary owing to their having well-marked physical signs. Such patients receive a fee for their attendance and examination. The system is an excellent one, though the amount of material available is necessarily limited.

The teaching of third year students in the general medical dispensary is somewhat handicapped by the large number of special clinics maintained at most hospitals. Thus, at the Johns Hopkins there are special Out-Patient Clinics for diabetics, protein-sensitisation, gastro-intestinal cases, phthisis, and heart cases. Such cases do not pass through the general medical clinic, which is therefore much limited in the teaching material available. Students do not as a rule attend the special medical clinics.

In the didactic teaching which forms so large a proportion of the third year course are combined conferences between the clinical staff and the pathologists. These so-called clinical-pathological conferences are held at practically all medical schools. The general plan is to give out to the students typed notes on the clinical history and course of a case: these are then gone over by the professor or one of his associates and after the differential diagnosis has been discussed, the Professor of Pathology demonstrates the changes found at autopsy, both gross and microscopic. The hospital radiographer also plays a more prominent part in teaching than in England. In addition to courses of lectures on X-ray diagnosis he takes part in medical-roentgenological conferences, at which the X-ray appearances and clinical findings are correlated.

At some of the medical clinics for the fourth year the student whose case is being shown has to give the history and physical findings to the class: this he is supposed to be able to do without the aid of any written notes or memoranda. Often students give excellent presentations of the case, but occasionally the value of the clinic is diminished by failure on the part of the student to give the salient facts concisely and audibly. In medicine no attempt is made to give routine courses of lectures covering the whole field, but the student is given advice as to reading, including not only text books, but important papers in the medical journals. In this connection hospitals appeared to be better supplied with current medical periodicals than in England; these included not only the English and American journals, but also a large number of Continental publications. In addition to the general library, special departments, such as Physiology or Pathology, usually maintain small special libraries of journals and reprints. On the whole American students appeared to read the more important current journals very widely.

During the fourth or practical year the student acts as a ward clerk in the medical and surgical wards and in some schools does a period of practical obstetric work. During this year the amount of didactic teaching is much smaller than during the previous year. Thus, at Columbia University, 210 hours out of a total of 1,100 hours are spent at lectures or clinics. At Johns Hopkins one trimester of eleven weeks is spent as a medical ward clerk, one trimester as surgical clerk, and the remaining trimester is a so-called "elective" period, in which the student is allowed to select one or more special branches of study in any of the clinical departments.

The duties of the medical ward clerk are somewhat similar to those in the London schools. He is allotted new cases in rotation, whose history he writes up, makes a physical examination, and carries out the simpler clinical investigations such as blood counts, test meals, and urine examinations. For this purpose each ward or group of wards has attached to it a small clinical laboratory reserved for the use of the ward clerks and house officers. Ward clerks spend a very great deal of time working in these laboratories, particularly at blood counts which are done as a routine on every patient at least once a week and often much more frequently. On the whole I thought that students tended to spend too great a proportion of their time in the laboratory and too little in the wards.

Ward rounds at the Johns Hopkins are held in the mornings five days a week for an hour

and a quarter. These are entirely in the hands of the professor and his full-time associates, each of whom has charge of a ward. The visiting medical staff do no teaching whatever in the wards. As the latter are men of great ability and wide clinical experience it seems unfortunate that the medical school is unable to make a greater use of their services, which at present are confined to a small amount of teaching in the medical dispensary to third year students, together with a limited number of lectures. The associate professors upon whom the bulk of the teaching devolves are generally speaking very much younger men, most of whom have never been in practice, but who are closely associated with the laboratory work rather than the clinical side of medicine. This to some extent is bound to react upon their clinical teaching, and tends to produce in the students a tendency to lay undue stress on the importance of laboratory findings and investigations.

This plan of concentrating the ward teaching entirely in the hands of the full-time medical staff is peculiar to Johns Hopkins. At Harvard the professors in charge of the medical services at the three general hospitals in Boston do most of the teaching themselves, but they are all also doing private practice. At the Presbyterian the visiting physicians take their share of the ward work in conjunction with the part-time professor. Similarly at Toronto the teaching work in the wards is divided between the honorary visiting staff and the professor.

Except at the Johns Hopkins and the Rockefeller Foundation I found an overwhelming weight of opinion against the strictly full-time system of clinical teachers, and even among members of the staff at the Hopkins there is considerable difference of opinion on the subject. The strictly full-time professorship is unpopular particularly in Boston, where the part-time professional staff are allowed to see and treat private patients in their own hospitals. It has been urged that under the system in vogue at the Hopkins the full-time staff are allowed the advantage of seeing private patients, if they so desire, provided that the fees are paid over to the medical school. Actually, however, the number of paying patients seen by the full-time staff is very small. as is evidenced by the fact quoted by Abraham Flexner that the total fees accruing to the school from four full-time departments averaged only 13,000 dollars a year. Flexner interprets this as evidence that the staffs "find relatively little in consulting practice that humanly, educationally, or scientifically requires their particular attention." Such a view is so obviously contrary to the considered opinions of all medical consultants that it cannot be seriously entertained. Obviously, the real reason for the small amount of private practice carried on by the full-time professors and their associates is that the outside general practitioner prefers to call in a practising consultant for his difficult and obscure cases, partly for the reason that he feels that in applying to the full-time professor he is asking a favour, and that the transaction is not upon a reasonable business basis.

To return, however, to the duties of the fourth year medical ward clerk, at the Johns Hopkins, the only part of their records that are embodied in the official hospital record is the history: the physical examination findings and the progress of the case are under the charge of the house-officer, who is also responsible for checking the results of the ward clerks' clinical laboratory investigations. In some hospitals, for instance the Toronto General, all the hospital records are kept by the house-officers, and the ward clerks write completely separate reports on their cases which are retained by themselves.

The duration of the ward clerk appointment varies in different schools. Judged by London standards it is invariably too short: at the Johns Hopkins it is eleven weeks; at Harvard eight weeks are spent in the wards or only four weeks where a student elects to spend an extra four weeks in surgery: at Columbia University the medical ward clerkship lasts seven weeks.

The surgical teaching is less practical than that in medicine. The surgical ward clerks write the reports on the cases, but the dressings are done by the house-officers and at major operations the student is only allowed to watch from a distance and does not take any active part as an assistant. A certain amount of practical work is done in the Accident Department under the direct supervision of instructors. I heard students express the opinion that at the Johns Hopkins they spend too much time in attendance in the operating theatre galleries.

The teaching of obstetrics varies considerably in different schools. At Harvard and Columbia

during the fourth year students live for a time at a lying-in hospital and carry out delivery of cases under supervision, both in the wards of the hospital and on the district service. At Johns Hospkins the only compulsory obstetric work is during the third year, when students live for a time in the Obstetric Clinic and attend a number of deliveries in the wards, and also the pre- and post-natal clinics in the Out-Patient Department. In the fourth year, students may choose as an "elective" a period of practical obstetric work on the hospital district.

Teaching of anæsthetics is practically non-existent as regards medical students. In the hospitals the anæsthetics are given by trained nurses and as a rule there is no qualified anæsthetist on the hospital staff. Apparently students can graduate without ever having given an anæsthetic.

Mention has already been made of the so-called elective work, which students are allowed to select for themselves according to their personal tastes. The whole system of "electives" is becoming rapidly one of the features of American medical education, and therefore merits a further discussion. At the Johns Hopkins the course is so arranged that time is available for elective work throughout the whole of the four years of the curriculum. In the final year one third of the total number of hours is elective, but during the three other years two afternoons a week are reserved for elective work. At Harvard and Columbia the elective work is entirely in the final year.

The introduction of elective subjects came as a response to criticism that medical education was too stereotyped in character and did not give sufficient latitude for the varying abilities and inclinations of individual students. Under the system of electives throughout the course it is hoped that students will be encouraged not only to extend their knowledge along the lines on which they are particularly interested, but in addition to enter upon research work under the supervision of the heads of the various laboratories or clinics. The subjects which may be taken as electives include practically every phase of both clinical work and the pre-clinical sciences. In some cases they consist of definite courses of lectures: for instance, during the fourth year elective lectures are available on such varying subjects as colloidal chemistry, cardiac arrhythmias, medical zoology, orthopædics, mental hygiene and urology, to quote only a few. Other electives may consist of practical work either in the clinics or in the laboratories: thus, an advanced course may be taken in the Tuberculosis Department for three months or additional work in practically any of the special departments such as laryngology, obstetrics or ophthalmology.

While it is an undoubted fact that the schedule of work during the two clinical years is much more rigid and stereotyped than the clinical instruction in London, it is not clear that the elective system is going to do a great deal to remedy the defect. The tendency of the system is rather to stimulate students to aim at specialising in one particular branch of work. Thus, for example, I met a student who was barely half-way through his third year course who had already made up his mind to be a cardiologist and had even gone as far as making arrangements to work in London under Sir Thomas Lewis at the end of his fourth year. It must be very doubtful whether a student who is practically at the beginning of his clinical work is really in a position to decide on taking up a speciality as a life's work. A truer form of elective system would perhaps be to lengthen the duration of the clerkship appointments and leave more free time to the student to study cases in the wards in accordance with his inclinations. Except in very special cases it is doubtful whether research work carried out for a limited number of hours a week during the period of clinical instruction does not do more harm than good, and may tend to deflect a student from obtaining clinical experience without compensating advantages.

As has already been pointed out, the examinations are conducted solely by the teachers in the school. In actual practice if a student succeeds in reaching the third year it is certain that he will be given his M.D. degree at the end of his fourth year, provided he does nothing outrageous. The examination system is employed not so much to decide whether a candidate is to obtain his degree, as to fix his place in the class. At the Johns Hopkins it consists of written papers only, and is approached by the average student with a quiet confidence very different from the attitude of the English student, who has to face unknown and unsympathetic external examiners. During the first two years of study there are examinations in the pre-clinical subjects, which are at any rate to the student more serious affairs.

as a small proportion of failures usually occur, involving in many cases withdrawal from the medical school.

Internships.

Reference has already been made to the fact that the granting of an M.D. degree does not confer on its owner the right to practise. In every case a State Board examination has to be passed, which in some States is dependent upon the candidate performing the duties of a house-officer or so-called "intern" for at least a year. Actually, it is extremely rare for a man to attempt to earn his living in practice without first doing at least one or more years as an intern. According to Flexner, in 1922 over 90 per cent. of men qualifying held an intern appointment. In fact, the internship is recognised both by students and teachers as the means by which practical skill and experience are obtained. The system is so universal that in any comparison between the products of medical education in England and America it must be taken into account. There can be no doubt that the American graduate, even from the best medical school, is unfit to go direct into practice, and practically none do so. The same is not true of the English medical schools, where a house-appointment, however desirable it may be, is by no means essential, owing to the much greater amount of practical work in the curriculum of the London schools.

How far it is wise for the medical schools to leave the matter of the acquisition of practical experience to the intern appointment is another question. Where an internship is held in a teaching hospital with a good clinical staff and ample facilities for investigation and the careful study of cases, the appointment is undoubtedly of the greatest value. On the other hand it must be remembered that only a limited number of graduates can obtain such posts and that in many cases men have to take internships in small hospitals often inadequately staffed and used mainly as cheap nursing homes for paying patients would be in England. Under such circumstances the opportunities for acquiring experience are small and absence of adequate supervision may lead to the acquisition of lack of care and system in dealing with patients. Compared with an internship in such an institution there is much to be said for the system of London Hospitals, where the practical work of the student is carried on under the close supervision of the staff.

The details of the intern appointment vary in different hospitals. At the Johns Hopkins the head of each department is allowed to select his own interns and may draw them from the students of the Hopkins or from other institutions as he pleases. Moreover, the interns in any particular department, such as medicine, or pediatrics, spend their intern year in that department alone. Some hospitals, however, maintain what is termed a rotating intern service, in which the intern does in succession a period of duty in several departments. Undoubtedly, from the point of view of the man who is going into a more or less general practice, the rotating internship is a valuable appointment and tends to give a wider outlook than a year confined to only one department. In all probability the system of rotating internships will become more generally established, as many of the State Board examiners are now insisting that the intern year they require shall be divided among a number of services.

In most hospitals the appointments of interns rests solely with the professor, but in some places, notably at Boston, the internships are given as the result of a competitive examination, which is held jointly by the various hospitals. In addition to the interns all American hospitals maintain a staff of assistant residents and a resident in each branch of their services. The latter posts are usually held for several years, and the resident holds a most responsible position both as regards the general organisation and the professional care of the patients. Thus, for example, at the Johns Hopkins the medical and surgical residents have the sole responsibility for the treatment of all acute cases admitted outside the ordinary hours during which the visiting staff are in the hospital.

One remarkable feature of the internships is the ease with which it is possible for graduates to obtain internships in teaching hospitals other than their own. Thus, there is considerable interchange between different schools: for example at the Johns Hopkins a Toronto graduate is Resident Physician, while at the Presbyterian in New York, this important post is help by a Hopkins graduate. Quite frequently the best men prefer to go to other schools for their internship or resident appointments. The same principle of interchange between schools applies to the higher posts, such as full-time associate professors, honorary visiting staff and professors. Among the larger teaching hos-

pitals in London the situation as regards appointments, both to posts as house-officers or visiting staff is essentially different, possibly not entirely to their advantage at any rate as judged by American ideas on education.

During the period of internship there is ample opportunity for acquiring both clinical and laboratory experience. In addition to the ordinary teaching rounds for students the interns attend a special staff round one morning a week, at which a number of specially selected cases are shown and discussed by the professor and his staff: in addition a number of the visiting staff are usually present at these rounds, and take part in the discussions. Staff rounds as a regular institution are of great value, particularly in a hospital such as the Johns Hopkins, where they help to form a link between the full-time and visiting staff.

Most teaching hospitals maintain a journal club which is open to staff and interns and in some institutions to senior students. The club meets once a week and one member of the staff reviews the recent literature on some particular selected subject: this is followed by a brief informal discussion on the same subject. At the Peter Bent Brigham Hospital in Boston the professor allots certain journals to interns and fourth year students, who have to review their contents briefly at the journal club.

The Unconscious: Its Future and Relation to Medicine.

A Paper read to the Physical Society, on Nov. 4th, by MR. C. P. BLACKER.

(Concluded.)

I now turn to a consideration of the Psycho-Analytic theories of the Unconscious. The movement began towards the end of the Eighties, when two Austrian physicians, Breuer and Freud, wrote a monograph on Hysteria. The genesis of the technique is actually dated, by the first of these, to a case of a woman suffering from a spastic paralysis of the right arm, disturbances of consciousness or "twilight states," and an aphasia for every language except English, with which she was but imperfectly acquainted. It was found that this lady, if lightly hypnotised, went into her "twilight state," in which she would speak fluently, with emotion, and in a disjointed way which, she said afterwards, gave her relief. Impressed by this, Breuer encouraged her thus to unburden herself, which she did more and more readily, until finally the event came out which had caused her symptoms. Her father had been suffering from a severe illness and she was nursing him. One night when his temperature was running high, she was sitting by the bedside waiting for the arrival of a surgeon from Vienna. With her right arm hanging over the back of a chair she fell into a dreamy state in which she saw a black snake come out of the wall and approach the sick man to bite him. She wanted to drive the creature away but could not move. Her right arm had gone to sleep, and as she looked at her hand she saw her fingers turn into little snakes with deaths heads. She tried to pray but no words would come to her except those of an English nursery rhyme she had learnt as a child, and she could then only think and pray in English. This was the actual scene from which the paralysis and speech trouble arose and the describing it restored her speech, and in the same fashion she was finally completely cured.

This hallucination clearly produced in the patient a severe mental shock, and the tendency of the school was first to attribute hysterical symptoms in general to some psychic trauma or sudden mental disturbance. Further consideration of the subject by Frued then suggested that there must be some additional factor at work, since everyone in his life-time experiences nervous shocks and only few develop hysteria. A predisposing cause was therefore sought and one was found occurring with invariable regularity.

It is this predisposing cause which has brought upon the psycho-analytic theory the odium of which it has not yet divested itself. The cause was a disturbance of the "love life" of the sufferer, using the word "love" in its widest sense. This discovery shifted the centre of gravity of Freud's researches from a consideration of the

mere existing cause—such as nervous shock or psychic injury—to the more important predisposing cause of a disharmony in the love life of the patient. This disharmony was found invariably to have its roots in infancy. Further, its origin was nearly always forgotten, and therefore "unconscious" in Freud's sense of the word.

In many cases, the events forgotten were found, when recalled, to be so vivid that the process of forgetting them was soon recognised to be an expression not of a passivity, but of a hitherto unsuspected *activity* of mind. This active forgetting, when conscious and willed, has been called "suppression"; when taking place without our knowledge is called "repression." Most active forgetting of unpleasant episodes of early childhood is "repressive" in this sense, the forgetting not being consciously willed as are, say, humiliating or disgusting experiences of later life. The much used word "complex" then came into being. By a complex is meant a group of emotionally coloured ideas that are forgotten and unconscious. Emphasis is laid on the "unconsciousness" of a complex in virtue of which it is contrasted for convenience with a "constellation" or group of such ideas which though perhaps unwelcome to their owner are nevertheless conscious.

Freud then formulated a theory of the neuroses which stated that all neuroses were due to the repression of part of the content of the mind into the unconscious, the repressed material having its basis in the love life, its roots in infancy, and, further, involving a conflict with the conscious part of the mind.

Though forgotten, these complexes are far from dead. They continue to smoulder in the unconscious and by their subterranean activity disturb the conscious equilibrium of the individual, giving rise, among other things, to neuroses.

In its action, a complex may be compared to an ingrowing finger-nail, the existence of which is inimical to the welfare, or at any rate to the comfort of its possessor. A mind thus divided might be compared to the condition of a Company, one Platoon of which had escaped from the control of the Company Commander, and on its own initiative led an independent existence. It is obvious that the efficiency of the Company as a whole would be gravely impaired by the repudiation of its interests by one of the units which should be subordinate to it.

The technique of Psycho-analysis aims at a complete synthesis of the mind, which, by restoring to consciousness repressed memories that are disturbing it, gives back to it the autonomy which it has lost. Its autonomy is in fact restored as that of the Company would be if the errant platoon were persuaded to submit to the authority of the Company Commander.

In Psycho-Analysis there are several techniques that can be used in order thus to enlarge and unify the orbit of consciousness, of which one only will be considered here as relevant to the subject of this paper, namely that of Dream Analysis. It was early discovered that there was much in common between the content of "twilight states," such as the one recently considered, and the content of dreams. Both were equally definitely pure creations of the mind and both were equally "strange" and "incomprehensible," and "ridiculous" to the conscious mind.

In the words of Freud, the dream is the "Via Regia" to the unconscious. The subject of dream analysis is outside the scope of this paper, but a development of the theory of dreams is important, for it makes of dreams, both of normal and psychopathic individuals the same general assertion as was above made of neuroses. The theory states that all dreams are disguised fulfilments of repressed wishes, sexual in nature, with their roots in infancy, and involving conflict with the conscious mind. A characteristic of Freud's writings is their dogmatism and the sweeping nature of his generalisations, and it is easy to imagine the opposition which this theory evoked.

A further extension of the theory involved the recognition that the "complex" in the sense thus defined, could be something much less definite and circumscribed than a shock or a fright or an injury during infancy. Thus, according to Freud, in males one of the most common and damaging complexes is one involving, during infancy, an attitude of antagonism to the father, resulting in a repressed hatred of him in later life.

Racially, male children are held to be predisposed in this way by the atavistic attitude of young males towards the "horde-leader" as previously described.

In the early part of their lives they are predisposed to it by receiving ill treatment from the father, and especially by witnessing brutalisation of the mother by the father. A

child suffering from this complex will tend to grow up hating everything *towards which* an adult *feels* in the same way as a child feels towards its father—anything, that is, bigger and stronger than himself, demanding obedience and allegiance. To adults, such ideas are symbolised by the conceptions of King, Country, Law, Morality and God. The association in revolutionaries of anti-monarchism, anti-patriotism, anarchy, anti-morality and atheism, together with their sympathy for all rebels against authority of whatever kind, leads to the suspicion that the symptom-complex they display may be the outcome of such an early dislike of the father. Thus, a complex may be produced by an infantile *attitude* of mind, as well as by a circumscribed event.

It may also be produced by an excessive indulgence in phantasy and by infantile identifications. All children have heroes with which they identify themselves. Having been brought up more or less on the Classics, I can remember for some reason, as a child, developing a passionate admiration for Ajax the Greater. I possessed an illustrated translation of the Iliad which contained a picture of the combat between Ajax and Hector before the walls of Troy. There was nothing in the picture to indicate which was Ajax and which Hector, but I quickly identified Ajax with the one who looked as if he were getting the best of it. When visitors came to the house I used to show them this illustration, and asked them who they thought was winning. If they said Ajax, I was delighted. If they said Hector, I was cast in gloom, and took a dislike to the visitor. According to Freud early identifications and phantasies play an important part in the constitution of the unconscious.

It is impossible to go into Freud's sex theories, or his theory of mechanisms at any length, beyond stating that the former is largely the product of the study of the aberrations and perversions of neuropaths.

At an earlier stage of this paper, I referred to the undifferentiated longing of the newly-born child for warmth, food, protection and love. Freud called this primitive need by a name which was responsible for some misunderstanding. The name he selected was "libido" which is generally understood to mean "reprehensible lust." This primitive need, Freud considered sexual in so far as it contained the undifferentiated potentialities of the later sex instincts, and in so far as certain primitive modes of behaviour, prompted obviously by such a need, cropped up in various forms with striking regularity in the perversions and neuroses of his patients.

Further researches of this school have covered, in the last 20 years, an immense field which there is not time even to delimit. Suffice it that in Freud's view both neuroses and dreams are essentially retrogressive and retrospective in character, both as regards the life of the individual and the instincts of the race. They look backwards, not forwards, and are rooted in primitive instinctive life, especially sex life.

This general survey introduces us to the views of Jung, of Zurich, a former pupil of Freud, who in the last 15 years, has departed from the tradition of his teacher, and has founded a school of his own. Much antagonism exists between the respective followers of Freud and Jung in this country. The Freudians look upon the Jungians as trucklers to popular prejudice, steeped in a sort of syrupy sea of sentimental mysticism. The Jungians regard the Freudians as wooden-headed materialists, whose leaning towards the prurient and the lewd is the expression of their own inner natures.

The essential points of departure of the Jungian psychology are two. The first is that instead of conceiving of the dream or the neurosis, or the general attitude of the unconscious as being retrospective, facing backwards towards infancy and primitive sexuality, Jung conceives of these entities as possessing a prospective disposition, being concerned with the life aims of the individual and with the perpetual problems of adaptation to present and future environment. Jung has invented the word "anagogic," meaning "leading upwards" to express this conception of the attitude of the unconscious. The second important distinction between the two schools is that for Jung there are two distinct layers of the unconscious, namely the personal unconscious, consisting of forgotten material in the life of the individual, and below this, the "collective, or absolute unconscious," which has no relation to the life of the individual, but which is an inheritance from our early human ancestry, and is common to all mankind. It is this collective unconscious which is responsible for the genesis of myths, the themes of which, throughout the world, display a remarkable similarity.

Jung maintains that in the course of every thorough psycho-analysis a stage is reached when the material of the individual unconscious is exhausted, and with the patient still uncured, the analyst finds himself confronted with this collective or racial unconscious. The reconciliation of the patient to this part of his unconscious is, to Jung, the most difficult part of the whole analysis, and he has called it by the high-sounding name of "the transcendental function." In order to make this point clear I had better quote an actual case which Jung advances as illustrative of this thesis.

The dreamer of the dream about to be described was a masculine type of woman who had recently indulged in a sentimental, passionate and highly idealised friendship with another girl more feminine than herself. But recently there had taken place some fierce disputes and emotional scenes which had forced the patient to realise that both parties were deceiving themselves, and that the friendship was essentially unsatisfying for both. The friendship had partly been the outcome of an exacting desire for love, on the part of the patient, to which she had been predisposed in infancy by an extravagant relation to her mother. The dream was as follows:—

"I am on the point of crossing a broad and rapid stream. There is no bridge, but I find a ford where I can cross. As I am on the point of doing so, a big crab that lies hidden in the water seizes my foot and does not let it go."

To the patient the stream stood for an obstacle to be crossed, the ford, for a means of crossing safely. It is the associations to the crab which are important. As we shall see, the symbol evoked certain reminiscences out of the patient's past life; after exhausting these Jung found himself confronted with the patient's collective unconscious. The first association to crab was: "A crab is an animal that walks backwards. Obviously it wants to pull me down into the stream. It clutched me in a gruesome way and I was horribly afraid." Next it recalled her unsatisfying friendship which the patient felt was an obstacle to her progress; but this had been made clear to her earlier in the analysis. Next it suggested cancer, a fearful incurable disease that remorselessly pulls you down. In German the names of the animal and the disease are identical. This suggested that a Mrs. X, another intimate friend of the patient's had died of cancer. Associations to Mrs. X were sought, and were found to be significant. Mrs. X was a pretty young widow who enjoyed life without scruple and had been much admired by men. Attention had particularly been paid to her by a gifted artist who had always impressed the patient as very fascinating and weird. The patient had been jealous of Mrs. X, since she possessed in herself a frivolous vein and a susceptibility to men which she had anxiously suppressed, since she feared it might seduce her to an immoral life. In fact, her abandoned friendship, previously referred to, was an attempt to satisfy vicariously this part of her nature. When Mrs. X died of cancer the patient had convinced herself that this fate was a punishment for the levity and lack of moral restraint of her friend's life. New light was thus thrown on the crab which came to represent a part of the patient's nature which might pull her down and submerge her, the symbol of crab being chosen by reason of the punishment with which Mrs. X, who stood for this part of the patient's nature, had been afflicted. Associations to the artist showed that the patient was predisposed to being impressed by the fascinating and weird, and that actually at this stage of the analysis these attributes were being projected by the patient upon Jung himself, the Analyst.

In what she described as an extraordinary phantasy, she said she had seen Jung as "something quite dangerous and sinister, like an evil magician or demon."

Now it is clear that in her life time the patient had never come across magicians or demons. This conception did not therefore belong to the individual unconscious, but to the racial or collective unconscious, and the next step in the analysis was to make the patient realise that this "primordial image," as Jung calls it, came from a part of her mind distinct from her "ego," but nevertheless a part of herself which she must clearly recognise and come to terms with. This is the "transcendental function" of the analysis.

The figure of a powerful, sinister, magical demon, which was later found to appear in the patient's unconscious as a "dark-skinned individual of Mongolian type" is, according to Jung, one of the "psychological dominants of the collective unconscious," and together with the other dominants, plays an important rôle in the genesis of myths. To these, in a very obscure and exceedingly irritating book

called the "Psychology of the Unconscious," Jung turns his attention. One of his contentions is that hero myths—in which a monster or dragon is killed, often on the banks of water, or in which the hero is swallowed by a marine animal of huge size which he then kills and escapes from—represents the triumph of the conscious self, over the beast of the collective unconscious.

These, then, are the chief points of departure of the School of Jung from the older Viennese School, namely, the Anagogic in place of the Retrospective interpretation of creations of the unconscious mind, and the belief in a general or racial unconscious, lying below, and fundamental to, the individual or personal unconscious.

There is yet a third school of Psycho-Analysis, less important than the two above, which I am compelled briefly to mention, namely the School of Adler. By this school the content of the unconscious is held to be characterised not so much by its sexual disposition as by a will to power. The instinct of self-assertion, the desire to dominate one's environment, the wish to assert superiority is held to have the same potency, the same dynamic value in the unconscious as is the sexual urge or Libido of Freud. The difference between the two schools seems to me largely to be one of point of view. Thus, the early infantile attitudes which to Freud express an undifferentiated sexuality, to Adler represent the child's first dawnings of a desire to dominate its environment, to assert a control over its surroundings. This school is responsible for stressing the much popularised "inferiority complex," and for creating the theory of "organ inferiority," into which I need not enter. But it does not, as far as I understand it, advance views upon the unconscious differing from those of the other schools, and it is unnecessary for me to dwell further upon it.

This ends my brief, and I fear very inadequate survey of the theories of the unconscious mind. I now turn to the attitude of medical men to the unconscious. Many types of men, medical and otherwise, have been attracted by Psycho-Analysis, and in this country the subject has fallen into a considerable disrepute by reason of the status of many of its exponents. There is always a tendency, when a completely new aspect of Medicine is floated, for those members of the profession who have not achieved a status in any other sphere, and in whom ambition is not associated with an excess of scruple, to snatch at it and exploit it to its utmost capacity. In its inception, Psycho-Analysis stood on much the same footing as now does the electrotonic treatment and the oscilloclast; and it was largely practised by people of the same standing as those who now use this instrument.

Furthermore, Psycho-Analysis exercises an attraction on people of two types, though fortunately there are others who are also interested in the subject. The first is what we may call the "extravagant" mind that delights in remote and improbable explanations. The second is the definitely lewd mind. Much of the Freudian literature has been read by the general public with no other than a salacious interest, masquerading as an interest in a new science. There are many persons practising Psycho-Analysis to-day the scabrousness of whose imagination leads them to interpret every mental phenomenon of their patients in gross sexual terms. This outlook is found especially in followers of the Freudian School, many of whom, unlike Freud himself, as I understand his personality, display a remarkable woodenness and unpliability of mind.

Such a person, on coming across a certain symbol in a patient's mind—say a tree—would cast his mind back over the literature he had read, and might remember that somewhere Freud had stated that a tree might be a phallic symbol. Since most things can be phallic symbols, he would probably have little difficulty in reaching this conclusion. An authority having been found, nothing—no power on heaven or earth—could shift such a man from his conviction of the correctness of his interpretation. With a cast-iron insensibility to the quality of his patient's mind, he will continue to maintain this proposition until he might eventually persuade the patient of it. It is this attitude on the part of certain Psycho-Analysts to-day which caused me, earlier in the paper, to make the assertion that the practice of the "New Psychology" is not a Science, but rather an Art.

In asking ourselves what are the qualities we should like to see possessed by an Analyst, we could do no better than ask ourselves what sort of a man we would like our sister or mother analysed by, if the process were necessary. There are essentially two desiderata.

The first may seem a commonplace but it is nevertheless exceedingly important. It is that the man should be "clean-minded."

It seems to me that in our attitude, as medical men, to sexual problems, we should try to avoid equally the prudish attitude of regarding them solely in terms of morality or immorality, and the attitude of the smoking room which sees in them material for smutty stories and jokes. We should regard the sexual instinct as a perfectly normal biological function, as necessary to our existence here as the nutritive or self-preservative instinct, with nothing *wicked* or *funny* about it. This point of view should be explained to the patient who is then in a position to regard his sexual function in the same light as any other function.

The second requirement is that the Analyst should be receptive, perceptive, and tactful. He should cultivate a keen sensitiveness to the personality and attitude towards life of each individual patient, and should be able, as it were, psychologically to get inside the skin of each. If he is good at this, he will realise at once that each person is different, and in a way unique. A certain dream, or symbol dreamt by one patient may mean something entirely different from what it might mean when dreamt by somebody else, or even when dreamt by the same patient in a different mood. A quality, therefore, which will do much to make an Analyst successful is a quality of specialised sensibility and perceptiveness, akin essentially to that of the artist. In understanding the mind of a person there are no "rules" or "laws" as there are in science. The most that can be said is that there are a certain number of loose generalisations with many exceptions. Anything resembling a *system* of interpretation can do nothing but harm. The number of people whose conditions have been seriously aggravated by Psycho-Analysts putting ideas such as Homosexuality, Incest, Œdippus situations, etc., into their heads has probably been at least as great as of those whose condition has been benefitted.

The question may be asked: Since there are so many conflicting theories as to the structure of the unconscious, how can we be certain that a given interpretation of say a dream, is the right one? A Freudian interpretation might easily be different from a Jungian interpretation, and both seem highly satisfactory to each of the different schools. This is a dilemma of which much has been made by opponents of Psycho-Analysis such as Wohlgemuth and others.

In my opinion the answer to this question is to be found in the attitude of the patient to the interpretation. A correct interpretation strikes the patient at once with an unmistakable and vivid sense of conviction. He just *knows* that it is true with a distinctive and almost unique sense of self-revelation, which one must have experienced oneself to be able to understand. If the patient is of a candid disposition, he will acknowledge this sense. If, as often happens, he practises self-deception, he will repudiate it indignantly. The sense itself must be distinguished from the patient's attitude to it. If this sense is not present in the patient, the odds are that you are off the track. And I should like to add here an observation from my small experience. The Psychopathic subject is characterised mentally by a lack of reconciliation towards his past life. There are incidents in it from which he averts his thoughts and his consciousness. The normal individual, however, has few such incidents. I think it a priori reasonable therefore to expect a Freudian interpretation in terms of unassimilated past life, to hold of neuropaths, and a Jungian interpretation, in terms of stresses of present life and adaptation to conditions of the future, to hold of normal people.

The dreams of most of the people in this room are probably fairly straight-forward Jungian dreams, the latent content of which consists chiefly of problems and stresses of the moment. There are two ways in which we must ask for associations from patients, which might be called, respectively, the personal and the symbolic. Thus, suppose I dream that I am standing in front of a dense wood, with before me a footpath losing itself in the heart of the wood, which I am about to take, I might ask myself for personal associations to woods. I might, for instance, have a reminiscence of being lost or frightened as a child in a wood, which determined the symbol in a Freudian sense. Or I might ask myself: "What does a dense wood '*stand for*' in my mind. What does it symbolise?" To this I would answer: A place where I cannot see my way far ahead; a place where suddenly anything might happen, out of which anything might come. Thus, in the "symbolic" sense, the wood might stand for "the Future,"—lying before one, through which one has to pass, into which one cannot see far, and out of which anything might come. This would be a Jungian interpretation and would have very little relation

to the patient's past experience. The two forms of association are distinct, and both should always be explored. In neuropaths the first would probably be more fruitful; in normal people the second.

I come now to the last part of my paper, namely to the future of the unconscious. As I said at the beginning, we embark here on a realm of almost pure speculation. I wish to state here a conviction I entertain with regard to the unlimited *poten'iali'i's* of the mind. It seems to me that a review of the evolution of the various human faculties should teach us that there are no limits to the possible attributes or to the power of the mind. If an environmental need for a certain attribute arises, and that attribute comes to be invested with what biologists call survival value—it may, in the course of time, become a common property of the race. The parental instinct is a case in point. Below the classes of birds or mammals this instinct is a rare phenomenon in the vertebrate world. It is found in a very few reptiles, a few amphibians, and a few fishes, but in these lower classes the instinct is rare. It will be remembered that in the secondary geological period—the Cretaceous Jurassic and Triassic periods—there were no birds or mammals, but the class of reptiles was much more highly differentiated and widely distributed than now. Reptiles were then almost ubiquitous, having conquered the air as well as the sea. The Secondary period was one of great warmth, when large areas of the earth were covered with hot steaming marshes. All that the mother reptile had to do was to lay her eggs in a safe warm place and leave them to hatch in the sun, as most reptiles now do. When, however, the Tertiary period came, the warmth was dissipated and a spell of cold set in, culminating in the more recent glacial epochs. Under these circumstances the previous attitude of parent animals to their young would lead to the immediate extinction of the species, and a great biological premium came to be laid on a psychological attitude of fondness and tenderness for the young, expressing itself in their early care and protection by the parent. In mammals a structure actually became developed for this purpose, which gives its name to the class—the mamma—of which there are few or no traces in reptiles. The point I wish to make here is that at the end of the Secondary period there was an environmental "need" for a further elaboration and extension of Mind, and in response to it, Mind effloresced in a new faculty. Who is to say that Mind has, in the human being, reached the limit of its potentialities?

Actually there is no reason why the human mind should not be exfoliating anew all the time, why individuals should not now and then be born actually with new faculties or 6th senses as they are popularly called. The so-called mathematical geniuses have such a new faculty. The gift often departs with childhood, but when present it enables its owner to *know*, without any calculation, the answer to mathematical problems that for ordinary people would involve much thought and labour. One such individual, whose gift remained all his life, and who was otherwise quite uneducated and, it seems, of poor intelligence, was actually paid by the German Government to write out in statistical form logarithms of big numbers which were published for the convenience of mathematicians in books. It seems that he never made any calculation, but just knew in a second what the logarithm was. He could give no account of how he knew it. This man possessed an extra faculty, which, in the rest of the human race, is absent. I was talking the other day to a man, who informed me that at the age of 9 he discovered that if he were confronted with a person with an illness he just *knew* what was the matter with him. He has abstained from learning any medicine or anatomy, since he says he feels that if he did so he would lose his gift. He describes tubercular caries of the lumbar vertebræ as—"inflammation of the lower part of the spine"—and his terminology is of this unspecialised order. At the age of 18 he was seeing 150 patients a day for nothing, and continued to work for nothing till he married the daughter of a rich industrialist who insisted on his abandoning these unbusinesslike habits. He now makes £5,000 a year. Of course the man may be a humbug, or may be deceiving himself. On talking to him, however, my strong impression was that he was honest, though I should not think of expressing an opinion on the validity of his claims. But I do not see anything more remarkable in such a faculty as there is in the faculty of the mathematical geniuses above considered. If these faculties were hereditary and were selectively favoured by environmental conditions, so that they came to possess survival value—as, the parental instinct did—there would then be no reason why they should not in time become universalised throughout the

human race. Instances might be multiplied of new faculties—those of water finders, musical geniuses, and possessers of Myers' "supersensory" means of knowledge, etc. The evidence on the whole for telepathy in certain rare cases seems to me rather convincing. But there is no time for more on this subject. I wish here to confine myself to stating that medical men who are concerned with any form of psychotherapy would do well to be prepared now and then to run into individuals whose minds are cast in an entirely different mould from the normal, and to whom few, if any, of the generalisations which hold of normal people have any relevance. It is possible that in another five hundred thousand years the human mind may be equipped with a much wider armoury of faculties than it possesses to-day, and may have a much deeper knowledge of itself.

The behaviour of the animal with a small cortex is much less influenced by reason—by which I mean, in this connection, the ability to profit by experience—and is more subject to instinctive, and simple reflex processes than is that of the human. Our large cerebral cortex enables us to control our actions in accordance with requirements more than we could otherwise do. There are, however, many functions which are capable of being influenced by "Mind," using the word in the widest *individual* sense, which do not come under the control of consciousness; such are the rate of the heart-beat, blood pressure, and various phenomena of the central nervous system. Thus, excitement, which is a reaction of the *mind*, will make the heart beat more quickly, and send up the blood pressure. By Hypnosis it is possible to influence a person's *mind* in such a way as to induce complete anæsthesia to pain—under which major operations have been done—or motor paralyses—such as also occur in hysteria. These effects are produced by influencing the Mind of the individual, but are not as yet under the control of the normal person's consciousness or will. There is good reason to suppose that in certain rare persons the dominion of consciousness or will has been extended to cover some of these functions. Certain Indians can throw themselves into a state of trance in which they become anæsthetic as they might under hypnotic suggestion, and in which they seem locally to be able to control their blood pressure. They allow themselves to be cut and they neither feel it, nor bleed. Janet describes a woman in whom cutaneous blisters were produced by the suggestion, given under hypnosis, that she was being burned. If vaso-dilatation can be produced by hetero-suggestion, I do not see why vaso-constriction should not be capable of being produced by auto-suggestion.

It is possible that in suitable subjects the action of Faith, like suggestion, might influence functions of the body outside the control of the will. On such a basis, it would not be impossible for a malignant growth to disappear if the arterioles supplying it underwent vaso-constriction. In fact, certain cases of spontaneous atrophy of cancers and sarcomata have been attributed to the action of Faith, and may have taken place in this way.

Since, therefore, the past history of the human race has been conditioned by the extension of consciousness and voluntary control to activities which previously were not voluntary and only dimly conscious, I suggest that the human mind may continue to proceed in the same direction in the future. That is to say that its faculties may become more manifold, and the orbit of its consciousness more extended, and that many of the activities which are now subconscious or unconscious will be capable of being summoned into the domain of consciousness.

This view, of course, pre-supposes an "orthogenetic" conception of biological evolution in which I partly believe, since under conditions of modern industrial civilisation no survival value seems particularly to attach to any attribute—either mental or physical—unless, perhaps, to feeble-mindedness and general social uselessness. To-day mental defectives and unemployables are the most prolific types. Mentally superior types are the most sterile. But my view is based on a consideration of human development such as we see it in retrospect for the last 500,000 years rather than for the last 50 years. I should be the first to admit that, biologically, the course things have taken in the last four generations has, so far as the human race is concerned, been far from encouraging.

But into the orthogenetic conception of evolution there is no time to enter. Very tentatively, I submit that the extension of consciousness that has characterised human development in the last million years will continue, till it embraces realms of the mind, and achieves a jurisdiction over the body which have hitherto been beyond its scope.

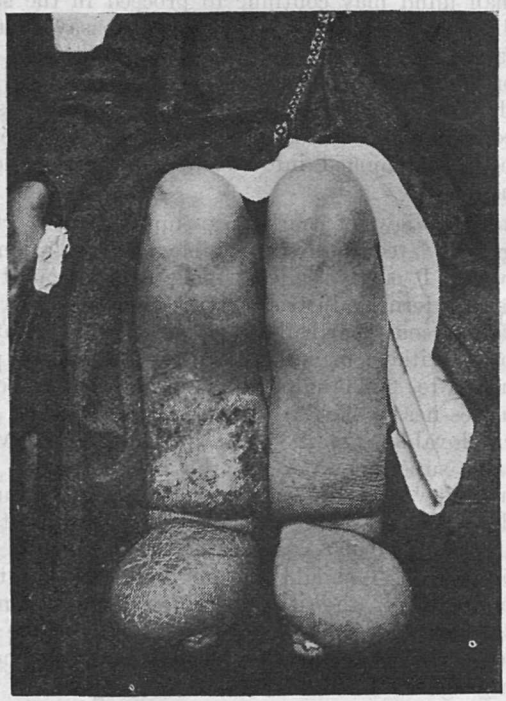
This is the only point I wish to make here about the future of the unconscious, and with it I end my paper.

Interesting Cases.

No. 5.—A Case of Elephantiasis of the Legs.

MRS. F. L., aged 47. Family history.—She was born in a small village in Buckinghamshire and has lived there all her life. She does not know of any similar condition to her own occurring in her family or in the neighbourhood. Her menstrual periods started at the age of 9½. She was married at 19 and has eleven children. She has had no previous illnesses.

At the age of 12 her feet began to swell, and the swelling gradually extended up the legs to the knees. Her first child was born



when she was twenty years old, and after this and subsequent confinements, the swelling of the legs increased markedly. It has not increased now for seven years and has never extended above the knees.

The swelling has always been painless, and until a year ago the only inconvenience in walking was the undue weight of the legs.

In October, 1924, the skin over the front of the right leg became eczematous. In spite of local treatment the condition became worse, probably on account of the poorly nourished state of the skin. As the patient was in continual pain, and greatly distressed about her condition, amputation of the leg was advised.

She was admitted to Guy's in July, 1925. The condition of the legs on admission is shown in the accompanying photograph.

The skin of the legs was dry and inelastic and of an ivory yellow colour. There was an eczematous area over the foot of the lower part of the right leg. The œdema was of a hard type, but pitted on prolonged steady pressure.

There was a marked constriction above each ankle, and the dorsum of the foot resembled a large bag of fat which could be moved freely from side to side. The toes and the soles of the feet were normal. The circumference of the middle of the calf was twenty inches, and the middle of the thigh eighteen inches.

On July 27th the right leg was amputated below the knee. The operation involved cutting across some of the œdematous tissue, which was of a clear gelatinous appearance.

For a week after the operation the patient ran an irregular temperature rising to 102° or 103° in the evening. There was a profuse serous discharge from the stump and she complained of considerable pain. After a week the pain disappeared and the temperature became normal.

The wound was completely healed in 26 days and the patient was discharged five weeks from the operation, walking comfortably on crutches.

The cause of the condition in this case is not known. Attempts to discover any of the types of filaria were unsuccessful. A congenital type of elephantiasis has been described and it is presumed that this case belongs to that class.

L. WYNN HOUGHTON.

Correspondence.

DEAR SIR,—I imagine that most people who had the great privilege of being present at the recent Concert of the Guy's Hospital Musical Society must admit that it was a finer performance than ever. May I venture to attribute this conspicuous success to two causes in particular?

1. The voices were accompanied, and very beautifully accompanied, by a string orchestra alone, with the result that the full value of the splendid chorus was not lost, and a perfect balance was maintained.

2. It is very delightful to feel that the Hospital is rich enough in musical talent to dispense with outside help.

When we come to Guy's we want to hear Guy's, and we are proud of our Hospital.

Heartiest congratulations to all concerned.

—Yours faithfully,

ONE OF THE AUDIENCE.

December 12th, 1925.

Reviews.

Pitfalls of Surgery. By HAROLD BURROWS, C.B.E., M.B., B.S. (Lond.), F.R.C.S. Published by Messrs. Bailliére, Tindall & Cox, London. *Price* 12*s.* 6*d.*

IT will be noticed that for this enlarged and amended edition of "Mistakes and Accidents of Surgery," the title of the book has been changed. This has been done in the hope that it will prove less attractive to the lay press under its present name than it did before.

As one knows, the number of surgical pitfalls is legion, but here they are arranged and presented in a very orderly manner, which, while they may appal the young surgeon, will certainly make him realise that Surgery is not the simple art it so often appears to be when dealt with by expert hands.

To be forewarned is to be forearmed; and the author has indeed done a very great service in embodying in this volume both his own, and others' experiences in such an eminently readable and interesting manner as to form a very useful auxillary to the many rather too dogmatic textbooks of surgery.

Religion and Natural Science. By E. HAIGH, M.A., B.Sc. Student Christian Movement. *Price* 4*s.* 6*d.*

THE Student Christian Movement, whose publications are steadily increasing in number and importance, have made a useful contribution to the literature of a familiar battlefield in this little book. Much water has flowed under London Bridge and many new curricula have been introduced into Guy's Medical School since Darwinism first created its historic flutter in the orthodox dovecotes of its day. It is difficult now to visualize the mentality which regarded religion as standing or falling with an anti-evolutionary interpretation of the early narratives of the Book of Genesis, but although Religion and Science have delimited their frontiers and defined their terms of reference, yet the better understanding will never altogether eliminate the possibility of conflict though that conflict will doubtless constantly change its venue. Mr. Haigh, following the lead of Wiseman, Newman, Temple, Waggett—to pick out at random only a few of the greater names—has done good service in putting the present position in a shape accessible to people who have ordinary intelligence without necessarily being experts.

It is clear to-day that the Bible is not and does not claim to be "The Word of God" in the old-fashioned interpretation of that somewhat unfortunate phrase. "The Word of God" in the Bible is always the Person, not the Book. That is a fact of vital and far-reaching significance. If anyone wants to realize the result of a failure to grasp it, he cannot do better than read Sir Edmund Gosse's masterly analysis of two colliding temperaments "Father and Son." But since the Bible is now seen to be the *record* of a revelation, that is, the human record of a divine revelation,

scientific inaccuracies are not only to be pardoned, but to be expected. The modernist who regretted that he had jettisoned the story of Jonah when he might have waited for the invention of the submarine, was under the delusion that a man could not be a true prophet unless he were an accurate scientist. Later came the precarious foothold accorded to religion in the acknowledgment that "there were still some things that science could not explain." But now that science knows that for every mystery it unravels it only discovers five others more mysterious still, and that any day a fresh discovery may demand a new theory of universe, religion and science may surely learn increasingly to walk hand-in-hand without accusing each other of trespassing. That they should so walk is much to be desired, not merely for the intellectual peace of mind of the orthodox, but because of the world's intense need of their practical co-operation. The whole revival of "spiritual healing," the practice of psycho-analysis, and the many allied forms of treatment, some genuine, some spurious, demand a real and sympathetic co-operation and mutual understanding on the part of professors of religion and of medicine if the whole subject is to reach the stage of sound establishment. Mr. Haigh's essay (with its useful list of authorities) is well calculated to provide an introduction for those who wish to work towards such a consummation.

A Manual of Midwifery. By Dr. THOMAS WATTS EDEN and Dr. EARDLEY HOLLAND. 6th Edition, with 7 Plates and 393 Illustrations in the Text. Pages xii. + 704. Publishers, Messrs. J. & A. Churchill, London. *Price* 21*s.*

FOR this sixth edition, Dr. Eden has obtained the co-operation of Dr. Eardley Holland, and about forty new illustrations, including two new plates have been added. The entire book has been revised and the latest knowledge on the subject has been incorporated. In particular, the sections dealing with toxæmias of pregnancy have been largely rewritten and a new part has been added, which deals with diseases, injuries and death of the fœtus. The few paragraphs on "birth-control," which students would have welcomed, are entirely omitted, but the book under its joint authorship will undoubtedly be as popular as ever.

Guy's Hospital Musical Society.

ONCE again, or to be exact, last Wednesday evening, the Guy's Hospital Musical Society emerged forth into the open, led by their indefatigable Director, Mr. Herbert Y. Templeman,—on this occasion, presenting a varied orchestral and choral programme, with Coleridge-Taylor's "Hiawatha's Wedding Feast" as the pièce de résistance.

The Chapter House was again lent for the occcasion by kind permission of the authorities of Southwark Cathedral.

The Concert opened with Handel's "Serse" Overture, played by the Orchestra, which, unfortunately, was confined to "strings" and piano, which latter instrument, having to "supply the wind and drums," became decidedly monotonous, more especially in the second movement of Haydn's Symphony in D, when the effect was that of an ill-balanced string quartette!

Mr. Charles E. Gallagher sang solo two of Sir Villiers Stanford's "Songs of the Fleet," —"Sailing at Dawn," and "The Little Admiral,"—with orchestral and choral accompaniment.

Then Mr. Templeman himself appeared in the rôle of solo violin, playing two items:—"Gipsy Serenade," (*Valdez*), and "Tempo di Minuetto" (*Pugnani-Kreisler*), and as an "encore"—Notali's "Cradle Song."

He then announced that owing to illness, Nurse Constance Evans (whose admirable performance in the part of "Queen of the Fairies" in "Iolanthe," at the Guildhall School of Music last spring, is still fresh in our memories), would be unable to sing, and he voiced the sentiments of all present in expressing sympathy in her misfortune, and wishing her a speedy recovery.

Instead, Nurse Sybil Evans undertook, almost at a moment's notice, to sing her song—"Softly Awakes my Heart," from Saint-Saens' "Samson and Delilah." Mention must be made of Mr. Templeman's playing of this accompaniment, so well known to pianists...alas! often to their discomfort!

Nurse Evans was compelled to sing two encores, before the enthusiasm of the audience had sufficiently abated for the rendering by the orchestra and chorus, of Holst's Carol, "Christmas Day," with its subtle allusion to the better known "Noel," so beloved of small boys at this season.

After the interval, followed the Symphony, and then "Hiawatha's Wedding Feast," with Mr. G. Trevor Hankey in the rôle of tenor, singing the famous "Onaway! Awake, Beloved!"

It was in the tremendous climax to Pau-Puk-Keewis's Beggar Dance specially, that the orchestral power was so lacking, in fact, playing fortissimo, at one time they were quite inaudible.

Then followed the Finale—the National Anthem.

Guy's must have a better orchestra, and we do appeal to all Guy's men,—and women too—who can play orchestral instruments, to become members without further delay, and thus ensure the Society its foremost place among Hospital Musical and Dramatic Clubs, and further, in order that a fuller and more adequate orchestra may be available for the coming performances of Gilbert and Sullivan's "The Gondoliers," which are to be given sometime during May, 1926.

There should be no need to appeal for support for these three performances to any who had the good fortune to witness "Iolanthe" last year, or "Trial by Jury," in 1924—these performances reached a standard of excellence seldom or never excelled by any other Amateur Dramatic Society. To those who are not present in May next, we can safely prophesy that their absence will be greatly to their own loss!

Journals received from the Wills Library.

Purchase.

British Medical Journal.
Clinical Journal.
Lancet.
Annals of Surgery.
Dental Cosmos.
Physiological Abstracts.
Brain.
British Journal of Venereal Disease.
Ergelmisse der Inneren Medezin der Kinder.
Index Medicus.
Journal of Anatomy.
Journal of Physiology.
Virchow's Archives fur Path. Anat.
Zeitschrift fur Hygiene und Infek Krank.

Presentations.

Archivio di Farmacologica Sper. E. Sc. Affini.
British Medical Journal.
Bulletins et Mem. de la Soc. Hosp., de Paris.
Medical Officer.
League of Nations Publications.
New York Academy of Medicine Bulletin.
University of Toronto Studies.
University of Colorado Studies.
Annals de l'Institut Pasteur.
Annales de Medicine.
Archives of Medical Hydrology.
Dental Digest.
Dental Record.
Irish Journal of Medical Science.
Royal Army Medical Corps Journal.
Kenya Medical Journal.
Long Island Medical Journal.
Medical Review.
New Zealand Medical Journal.
Revue de Medicine.
Revue Medical de l'Est.
Guy's Hospital Reports.
Indian Journal of Medical Research.

Exchange G.H.R.

Medical Journal of Australia.
American Journal of Medical Sciences.
American Journal of Surgery.
Archives of Internal Medicine.
Archivio Franco-Belges de Chirurgie.
British Journal of Dermat. and Syph.
Glasgow Medical Journal.
Johns Hopkins Bulletin.
L'Odontologie.
Medical Journal of Australia.
Proc. Royal Society of Medicine.
St. Bartholomew's Hosp. Reports.

Hospital Information, etc.

Pass List.

Royal College of Surgeons.

F.R.C.S.

Final Examination.

K. M. K. Duff. N. L. Eckhoff.

University of London.

Third (M.B., B.S.) Examination.

November, 1925.

Honours.

*††W. R. Spurrell, B.Sc.

*University Medal.
†Distinguished in Pathology.
‡Distinguished in Surgery.

Pass.

C. B. Andrae.	G. H. Pitt.
G. F. Ford.	W. G. Roberts.
L. G. Housden.	W. F. Roper.
M. E. M. Jago.	M. B. Seng.
E. E. Neser.	C. Shepherd.

Group I.

H. L. Peake.	W. S. Whimster.
R. L. Waterfield.	

Group II.

H. C. Beccle.	E. H. J. Berry.
L. F. Beccle.	T. R. Hill.
S. Berman.	H. Lewis.

Society of Apothecaries of London.

November, 1925.

Surgery.

N. Cohen.	B. Horwitz.

Forensic Medicine.

A. M. El-Mishad.	S. R. G. Pimm.
*C. L. Froehlich.	F. Widlake.

Midwifery.

*C. L. Froehlich.	F. Widlake.

*Has now completed the Examination.

Papers by Guy's Men.

C. Worster Drought, M.D. A Case of Hirschsprung's Disease with Optic Atrophy and old Choroiditis.—Proc. Roy. Soc. Med., xix., 1925, Section for the Study of Dis. Children, p. 11.

G. B. Dowling, M.D. Case of Schamberg's Disease.—*Ibid.*, Sec. Dermat., p. 2.

——. and Another. Case of Blastomycetic Dermatitis (Gilchrist).—*Ibid.*, p. 4.

J. Lewin Payne, O.B.E., L.R.C.P., M.R.C.S., L.D.S. The Origin and Growth of the Odontological Society (President's Address).—*Ibid.*, Sec. of Odontology, p. 1.

Change of Address.

Sidney Adams, Buckingham House, 6/7, Buckingham Street, Charing Cross, W.C.2.

Dr. A. J. Colles, The Rocklands, Clent, Worcs.

Francis St. John Powley, "St. Hiliary," Boveney Road, S.E.23, and 47, Church Rd., Hove, Sussex. Phone: Hove 2787.

Appointment.

K. M. C. Woodruff, M.B., B.S. (Lond.), Anæsthetist to the Chelsea Hospital for Women.

Specialities.

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Editorial and Publishing Office:—THE COUNTING HOUSE, GUY'S HOSPITAL, LONDON, S.E.1.

Birth.

BEVAN-BROWN.—On November 15th, 1925, to Dr. and Mrs. Bevan-Brown (née Young), of Jordans, Bucks, a daughter.

EDS. { C. P. B. / S. V. S.